This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

MUNICIPAL AFFAIRS.

ISSUED AT QUARTERLY INTERVALS BY THE

Reform Club Committee on City Affairs, New York.

VOL. V, No. 1. *MARCH, 1901.* WHOLE No. 17.

A BIBLIOGRAPHY OF MUNICIPAL PROBLEMS AND CITY CONDITIONS.

By ROBERT C. BROOKS.

SECOND EDITION—REVISED AND ENLARGED

Complete to January 1st, 1901.

NEW YORK:
REFORM CLUB, COMMITTEE ON CITY AFFAIRS,
52 WILLIAM STREET.
LONDON: P. S. KING & SON, ORCHARD HOUSE, WESTMINSTER, S. W.
PARIS: SOCIÉTÉ NOUVELLE DE LIBRAIRIE ET D'ÉDITION, 17 R. CUJAS.
THE HAGUE: MARTINUS NIJHOFF.

Entered at the Post Office at New York, and admitted for transmission through the mails as second-class matter.

MUNICIPAL AFFAIRS.

A Quarterly Magazine for all interested in City Problems.

"Very excellent."—*Review of Reviews (American).*
"Exceptionally interesting and important."—*Chicago Record.*
"None more welcome."—*Sanitary Record.*
"Indispensable to students of municipal problems."—*Outlook.*
"A meaty publication."—*Boston Globe.*
"Notable."—*Detroit Free Press.*
"An excellent publication."—*Surveyor.*
"Unique and eminently successful."—*Engineering News.*

See reverse side of this sheet for further notices.

Its articles have been widely re-published in the United States, Canada, Great Britain and Australia, and translated into German, French, Spanish and Italian.

The highest authorities on CITY PROBLEMS on both sides of the Atlantic contribute to its pages.

The world's literature upon municipal conditions is indexed in every issue.

Digests of magazines and book reviews are exceedingly valuable to the busy man.

Subscription Price, $2.00 per Year.

Address COMMITTEE ON CITY AFFAIRS,
52 WILLIAM STREET, NEW YORK CITY.

MUNICIPAL AFFAIRS.

A QUARTERLY MAGAZINE

DEVOTED TO

THE CONSIDERATION OF CITY PROBLEMS

FROM THE STANDPOINT OF THE

TAXPAYER AND CITIZEN

VOLUME V, 1901.

LIBRARY OF THE UNIVERSITY OF CALIFORNIA

NEW YORK:
Reform Club, Committee on Municipal Administration.
1901.

CONTENTS.

	PAGE
A Model City, by *William S. Crandall*	670
Advertising and Art, by *Milo Roy Maltbie*	738
Bibliography of Municipal Problems and City Conditions, by *Robert C. Brooks*	1
Boston's New Subway, by *Willard Winslow*	427
City Government and the People, by *Robert Fulton Cutting*	881
Columbus' Attempt to Secure Three-Cent Fares, by *Edward W. Bemis*	905
Decoration of Public Buildings, by *Charles M. Shean*	710
Franchise Taxation in Illinois, by *Hiram B. Loomis*	388
Franchises, Piracy of Public, by *R. R. Bowker*	886
Grade Crossings, Abolition of, by *Charles Zueblin*	817
Growth of Cities: 1890-1900, by *Adna F. Weber*	367
Local Option by Popular Vote, by *Lyman Abbott*	859
Naples' Tammany Overthrown	917
New York City Election, Municipal Betternment in, by *John DeWitt Warner*	625
—— A Constructive Policy, by *John Martin*	641
—— Amend the Debt Limit, by *Bird S. Coler*	664
—— Beautifying Columbus Circle, N. Y., by *A. P. Doyle*	722
—— Saloon Problem, by *John G. Agar*	829
—— —— Enforce the Law, by *M. N. Clement*	852
—— —— State Promoted Vice, by *John DeWitt Warner*	842
—— —— Sunday Opening by Statute, by *William Travers Jerome*	867
—— Subway Policy, by *William J. Gaynor*	433
Our Heritage of the Picturesque, by *Edward Hagaman Hall*	349
Parks and Tree Planting, by *Frederick Kelsey*	675
Philadelphia, Recent Legislation in Pennsylvania and, by *Clinton Rogers Woodruff*	419
Philippine Islands, Municipal Government in the, by *Carl C. Plehn*	793
Plant Decoration, by *Katharine C. Budd*	684
Primaries, Minneapolis Plan of Direct, by *William Charles Hodder*	802
Public Art, The Test of Greatness, by *Brooks Adams*	810
Saloon, Social Function of the, by *Felix Adler*	876
Sculpture, Municipal, by *Charles Albert Lopez*	696
Street Railways of Chicago; Report of the Civic Federation Committee	439
—— —— Accountant's Report, by *Edmund F. Bar*	484
—— —— Analysis of Financial Operations, by *Milo Roy Maltbie*	441
Sweden, City Administration in, by *Gustaf Siösteen*	779
Street Signs and Fixtures, by *Nelson S. Spencer*	726
Taxation, Valuation of City Real Estate for, by *W. A. Somers*	401
Vice, Another View of Municipalities and	376
Washington, Embellishment of	909

BOOKS REVIEWS.

Back from the Soil, by Bradley Gilman.—*Homer Folks*..... 759
Chicago Statistics, City of 925
Germany, Municipal Administration in, by Edmund J. James..... 925
Government of the American People, by Frank Strong and Joseph Schafer 761
Harrisburg, Pa., Proposed Municipal Improvements for..... 926
Improvement of Towns and Cities; or, The Practical Basis of Civic Aesthetics, by Charles Mulford Robinson.—*John DeWitt Warner*.. 754
Inside the Machine: Two Years in the Board of Aldermen, by P. Tecumseh Sherman 763
London Manual for 1901, by Robert Donald 760
Monopolies, Past and Present, by James E. Le Rossignol..... 761
Moody's Manual of Corporation Securities 761
Municipal Accounting, by F. H. Macpherson 762
Municipal London, 1900, by C. A. Whitmore 760
Municipal Year Book for the United Kingdom for 1901, by Robert Donald 760
Newyorkitics, by John H. Girdner..... 762
New York, a Landmark History of, by Albert Ulmann 762
New York, General Ordinances of the City of, by George Whitfield Brown, Jr..... 926
Public Health and Housing, by John F. J. Sykes 762
Report of the New York Tenement House Commission.—*Charles F. Wingate* 758
Sanitation in the United States, Municipal, by Charles V. Chapin..... 927
Substitutes for the Saloon, by Raymond Calkins.—*Delos F. Wilcox*.. 922
Talks on Civics, by Henry Holt..... 761
BIBLIOGRAPHIES 1, 595, 764, 928

BIOGRAPHICAL NOTICES.

Abbott, Lyman 945
Adams, Brooks 944
Adler, Felix 945
Agar, John G..... 945
Bemis, Edward W..... 926
Bowker, R. R..... 926
Clement, M. N..... 945
Coler, Bird S..... 778
Crandall, William S..... 778
Cutting, Robert Fulton 946
Doyle, A. P..... 778
Gaynor, William J..... 621
Hall, Edward Hagaman 620
Hodder, William Charles 944
Jerome, William Travers 945
Kelsey, Frederick W..... 778
Loomis, Hiram Benjamin 620

109356

Lopez, Charles Albert 778
Maltbie, Milo Roy 621
Martin, John 777
Plehn, Carl C. 944
Shean, Charles Morgan 778
Somers, W. A. 620
Spencer, Nelson S. 778
Warner, John DeWitt 777
Weber, Adna F. 620
Winslow, Willard 621
Woodruff, Clinton Rogers 621
Zueblin, Charles 944

Copyright, 1901-2, by the
REFORM CLUB COMMITTEE ON CITY AFFAIRS.
52 WILLIAM STREET, NEW YORK.
All Rights Reserved.

LIBRARY OF THE UNIVERSITY OF

SUBJECT INDEX

INCLUDING CITIES, STATES AND COUNTRIES.

City Government, General Works and Unclassified.

[Note.—The literature of city government, and especially the part produced in America, is of such a nature that to distinguish between works that are systematic and those that are propagandi t is practically impossible. Under the above general heading, therefore, are included all materials which in the Bibliography of 1897 were placed under the topics "Administration" and "Reform," together with all similar titles of more recent date. In current discussion, the terms "city government," "municipal administration," etc., are used interchangeably. Articles bearing such titles are grouped below. In arranging articles dealing with special cities and countries, the same division into topics has been followed as in the Bibliography as a whole. The list of cities and states under each topic indicates that articles dealing with that subject in these cities and states may be found under their names. One exception to the general alphabetical arrangement has been made by placing the titles of works dealing with municipal government, general city conditions, or which are otherwise unclassifiable, at the head of the lists under the name of separate cities and states.]

Short list of cyclopedias and other works frequently referred to by number:

"Cyclopedia of Political Science, Political Economy and of the Political History of the United States." Lalor, John J. Chicago, M. B. Carey & Co., 1883. 3 vols. $7.50 each. 1

"Dictionary of Political Economy." Palgrave, R. H. Inglis. London, Macmillan, 1894, 1896, 1899. 3 vols. 8vo, 798, 848, 757 pp. Cl. $6.50 each. 2

"Encyclopedia of Social Reform, Including Political Economy, Political Science, Sociology and Statistics, etc." Bliss, W. D. P. (Editor). London and New York, Funk & Wagnalls Co., 1897. 8vo. 1439 pp. Cl. $7.50. 3

"Historic Towns Series, American." Powell, Lyman P. (Editor.) 3 vols. New York, Putnams, 1898, 1899, 1900. 8vo. 597, 439, 528 pp. Cl. $3.50 each.
Historic Towns of New England. 4a
Historic Towns of the Middle States. 4b
Historic Towns of the Southern States. 4c

"Municipal Government in Continental Europe." Shaw, Albert. New York, Century Co., 1895. 8vo. 500 pp. Cl. $2. 5

"Municipal Government in Great Britain." Shaw, Albert. New York, Century Co., 1895. 8vo. 385 pp. Cl. $2. 6

"Social Statistics of Cities." (History, description and statistics of principal American cities in 1880.) Waring, Geo. E. Pt. I, New England and Middle States, 915 pp. Pt. II, Southern and Western States, 843 pp. Washington, Government Printing Office, 1886. 7

"Statesman's Year Book." Keltie, J. Scott, Editor. London, Macmillan, issued annually. $3 per year. 7a

"The State." Wilson, Woodrow. Boston, D. C. Heath & Co., 1889. 686 pp. $2. 7b

"Handbuch der Politischen-Oekonomie." (Volkswirtschaftslehre in swei Bänden, Finanzwissenschaft u. Verwaltungslehre im dritten Band). Schonberg, Gustav. (Hrsgbr.) Tübingen, H. Laupp, 2 Auflage, 1885. 734, 1007, 1015 pp. 50m. 8

City Government, General Works and Unclassified—*Continued.*

"Handbuch des öffentlichen Rechts der Gegenwart in Monographien." (References to local organization indexed under separate countries.) Marquardsen, Heinrich. (Hrsgbr.) Freiburg i. B. J. C. B. Mohr, 1887-1889. Bd. I, II, III, (2 Halbbände), IV, (2 Halbbände). Subscr. Pr. n. 97 m. 9

"Handwörterbuch der Staatswissenschaften." Edited by Conrad, Elster, Lexis and Loening. Jena, Gustav Fischer, 1st edition 6 vols. 8vo, 1890-1894. 1046, 1007, 1105, 1276, 885. 959 pp. Index 82 pp. issued 1895. Two supplements, 904 and 1076 pp., 1895-1897. n. 120 m. geb. n. 135 m. Four volumes of the second edition issued. 10

"Constitutions Européennes; les parlements, les conseils provinciaux et communaux et l'organization judiciaire dans les divers Etats de l'Europe." Demombynes, Gabriel. Paris, Larose et Forcel, 1881, 2d ed. 1883. 2 vols. 8vo, 1600 pp. 1st ed., 18 fr.; 2d ed., 24 fr. 11

"Dictionnaire des Finances." (Important articles on Assistance Publique, Le Budget Communal, Communes, Octrois, indexed separately.) Say, Leon. Paris, Berger, L. & Co., 1889, 1894. 2 vols. 1562, 1571 pp. 87 fr. 50 c. 12

"Nouveau Dictionnaire d'Economie Politique." Say, J. B. Leon. Paris, Guillaumin, 1891-1892. 2 vols. 1448, 1345 pp. 55 fr. 13

"Administration, The Study of." Wilson, Woodrow. Pol. Sci. Q. 2:197 (1887). 14

"Administrative Law, Comparative." Goodnow, Frank J. New York and London, Putnam, 1893. 2 vols. 8vo, 338 and 327 pp. $5. (Book III. Vol. I. on Local Administration in the United States, England, France and Prussia). 15

"Advantages of City Life." Halstead, Leonora B. Soc. Econ. 4:219 (1893). 16

Bibliography. "Reference List of Works Relating to Municipal Government." Woodward, Frank E. Malden, 1887. 4 pp. 17

——. "References on Municipal Government in the United States." Hodder, Frank H. Cornell University Library Bulletin, Vol. II, 1888. 18

——. "Bibliography of Municipal Government in the United States." Hodder, Frank H. Kansas University Quarterly 1:179-196 (1893). 19

——. "Bibliography of Municipal Government and Reform." Pp. 341-81. Pro. First National Conf., 1894. See 6-18a. 19a

——. "Reference List on Municipal Government." (Chiefly since 1894.) Monthly Bulletin of the Providence (R. I.) Public Library. The Bulletin of the Providence Public Library for Feb., 1895 (pp. 14-16), contains an earlier list on the same subject referring principally to works appearing since 1890. These lists are based upon a bibliography prepared by Miss Mary S. Cutler, of the New York State Library School, Albany, N. Y. 20

——. "Bibliography of Municipal Administration and City Conditions." Brooks, Robert C. New York, Reform Club, 1897. 8vo, 224 pp. 50 cts. (Published as No. 1, Vol. I. of Municipal Affairs. Subsequent numbers of this quarterly contain bibliographies of the municipal literature for the preceding quarter, all of the material thus published being collected in the present work.) 21

——. For references to bibliographies on various special municipal topics see "Bibliographies," or the sub-head bibliography, under the several topics.

City Government, Municipal Government, Municipal Administration.

"American Political Ideas and Institutions in their relation to the Problem of City Government." Rowe, Leo. S. Municipal Affairs 1:317 (June, 1897.) 22

"Business Men in Municipal Government." Real Estate Rec. and Guide, Feb. 23, 1895. 23

——. "The Business Man and His Interest in City Government." Young, John F. Proceedings of the Convention of the League of Wisconsin Municipalities, Bulletin No. 3, p. 30, June 26-27, 1899. 24

——. "Relation of the Business Man to the Municipality." Freud, J. Richard. Cal. Mun. 1:15 (Aug., 1899.) 25

Business Theory of City Government, etc. "Municipal Government, a Corporate, Not a Political Problem." Morison, Frank. Forum 13:788 (1892.) 26

——. "Government of Cities, the Need of a Divorce of Municipal Business from Politics." Storey, Moorfield. Proc. Natl. Civil Service Reform League, Buffalo, 1891. p. 47. 27

"City Government." Bradford, Gamaliel. Vol. II, Chs. XXIV, XXV, XXVI, XXXIII. "The Lesson of Popular Government." New York, Macmillan, 1899.

City Government, General Works and Unclassified—*Continued.*

2 vols. 8vo, 520 and 590 pp. $4. 28

"City Government." Raemelin, C. Paper read before the American Association for the Advancement of Science, at Ann Arbor, Mich., Aug. 1885. Summary of the paper, p. 508 Proceedings of the Association for 1885. 29

City Government, Municipal Government, Articles on. Conkling, Alfred R. Mun. & Ry. Rec. 4:18, 57, 104 (Jan.-March, 1899); Davis, J. DeP. Arena 2:506 (1890); Eaton, Dorman B. Am. J. Soc. Sci. 5:1 (1873); Garrison, W. P. Nation 55:197 (1892); Gladden, Washington. Cent. 49:155 (1894); Godkin, E. L. Nation 13:188, 333 (1871); Hale, E. E. Old and New 7:249 (1873); Ivins, W. M. Pol. Sci. Q. 2:291 (1887); Jordan, David Starr. Mchts. Assoc. Rev. p. 1, May, 1897; Parton, James. Chaut. 8:203 (1888); Picton, J. A. Contemp. 34:678 (1878); Shaw, Albert. Our Day 13:472 (1894); Stevenson (Mrs.) Cornelius. Good Govt. 13:123 (1894); anon. Nation 4:434 (1867), 13:183 (1871); Albany Law Journal 4:263 (1871); Christian Register, Nov 17, 1892. 30

"City Government, Past, Present and Future." Chamberlain, Joseph. New R. 10:649 (1894.) 31

"Commissioner Plan of Municipal Government, The." Young, W. E. City Govt. 6:24 (Feb., 1899.) 32

"Considerations on Municipal Government." Conder, F. R. Fraser 95:34 (1877.) 33

"Democracy, City Government and." Curley, E. A. Leslie's Wkly. 74:40, 126 (1892), Cosmopol. 14:737 (1893.) 34

——. "Great Cities and Democratic Institutions." Pickard, C. E. Am. J. Pol. 4:378 (1894.) 35

"Development of an Efficient City Government." Stewart, Gilbert H. Public Policy 3:359 (Dec. 8, 1900.) 36

"Duties of Citizens in Reference to Municipal Government." Nichols, Wm. I. Municipal League of Philadelphia Pubs. 1892. 12 pp. 37

"Europe, Municipal Government in." Hudson, Richard. Ann Arbor Studies in Finance and History, Michigan Univ., Vol. II, No. 4. 25c. 38

——. "Comparative Sketch of municipal institutions in France, Belgium, Italy, Prussia and Austria, with the addition of an outline of local self-government in England." (In Russian.) Wtoroff, Nicholas. St. Petersburg, 1864. 8vo. 39

——. "European Town Life." Shaw, Albert. Chaut. 9:519 (1889.) 40

——. See under names of various European countries. Also especially 1-5.

"Evils of Municipal Government." Black, William Nelson. Engng. M. 3:73 (1892.) 41

"Failures in Municipal Government, Our." Bradford, Gamaliel. Ann. Am. Acad. Pol. Sci. 3:691 (1893). Separate, 15 cts. Same subject, Scrib. M. 2:485 (1887.) 42

——. "Municipal Government, Why It Fails." Cooley, Stoughton. Am. J. Pol. 3:178 (1893.) 43

"Federal Plan of Municipal Government." Black, Samuel L. City Govt. 6:27 (Feb., 1899); Gladden, Washington. Prog. Age 15:557 (Nov. 15, 1897.) 44

Good City Government. (See under Reform of City Government, Reform Organizations below.)

"Government of Cities." Hoffman, Frank S. Chap. XI, p. 187, "Sphere of the State." London and New York, Putnam, 1894. 275 pp. $1.15. 45

——. "Government of Cities." Hosmer, James Kendall. Pp. 298-307 "Short History of Anglo-Saxon Freedom." New York, Scribner, 1890. 419 pp. $2. 46

——. "Government of Cities." Hotchkiss, Wm. Horace. Address before the Liberal Club, Buffalo, Feb., 1893. 47

——. "Government of Cities." Storey, Moorfield. Address before Citizens' Association of Buffalo, Sept. 30, 1890. Article on same subject, New Eng. M. n. s. 6:432 (1892.) 48

——. "Government of Cities." Walthew, George W. (Chapter V, in "The Philosophy of Government.") New York, G. P. Putnam's Sons, 1898. 12mo, 207 pp. Cl. $1.25. 49

"Government of Municipalities." Eaton, Dorman B. New York, The Macmillan Co., 1899. 8vo, 526 pp. Cl. $4. 50

"Great Cities, Government of Our." Godkin, E. L. Nation 3:312 (1866). 51

——. "Government in Great Cities." Jenkins, H. M. American 6:8 (1883). 52

Local Government, including municipal government. Pp. 624-627. Vol. II. Palgrave. See 1-2.

City Government, General Works and Unclassified—*Continued.*

——. "Books on Local Government." Gomme, G. L. Bibliographer 1:116, 149; 2:45 (1882.) 53

——. "Local Government Among Different Nations." Dilke, C. W. J. Statis. Soc. 37:313 (1874). 54

——. "Local Government at Home and Abroad." Porter, Robert P. Princeton Rev. n. s. 4:172 (1879.) 55

——. "Local and Municipal Government." Axon, W. E. A. British Almanac Com. 1885, p. 56. 56

——. "Local Government and Taxation." Probyn, J. W. Cobden Club Essays. London, Paris and New York. Cassel, Petter & Galpin, 1875. 454 pp. 5s. (Contains articles which have been indexed separately on local government and taxation in England, Scotland, Ireland, Australian Colonies and New Zealand, Belgium and Holland, France, Russia, Spain and Germany.) 57

——. "Local Self-Government and Centralization, the Characteristics of Each and its Practical Tendencies as Affecting Social, Moral and Political Welfare and Progress." Smith, J. Toulmin. London, Chapman, 1851. 8vo. Cl. 5s. 58

"Municipal Administration." Mathews, Robert. Rochester, N. Y., 1885. 16 pp. 59

"Municipal Government." Bellamy, Francis. Address before Baptist Congress, New Haven, Conn. 1890. 60

——. "Municipal Government." Fisher, Wm. R. Philadelphia Social Science Association Publications. 1883. 28 pp. 61

——. "Municipal Government." Harrison, Carter H. Address before Nineteenth Century Club, New York, Nov. 23, 1886. 62

——. "Municipal Government." Lea, Henry C. A letter to the Municipal Commission of Pennsylvania, Jan. 4, 1877. 63

——. "Municipal Government." Low, Seth. Address delivered Feb. 19, 1885. Same subject, address before the Philadelphia Committee of Fifty, Jan. 25, 1892. 64

——. "Municipal Government." Moffett, S. E. Chapter VII, p. 86, "Suggestions on Government." Chicago, Rand, McNally & Co., 1894. 200 pp. $1. 65

——. "Municipal Government." Sterne, Simon. Pp. 257-74 in his "Constitutional History and Political Development of the United States." New York, Cassell, 1883. 575 pp. $1.25. 66

——. "Municipal Government." Williams, Leighton. Address before Baptist Congress, New Haven, Conn. (1890.) 67

——. "Municipal Government as it should be and as it may become." Rowe, Leo. S. P. 111 Proc. First Natl Conf. for Good City Govt., 1894. See 6-18a. 68

"Notes on Municipal Government." Rowe, Leo S. and Allen, W. H. A special department in the Annals of the American Academy of Political and Social Science since Nov., 1894. 69

"Political Organization of a Modern Municipality." Lewis, Wm. D. Ann. Am. Acad. Pol. Sci. 2:458 (1892.) 70

——. "De l'Organisation Communale et Municipale en Europe, aux Etats Unis et en France. Pascaud, Henri. Paris, Guillaumin et Cie., 1877. 3 fr. 50c. 70a

"Problem of Municipal Government." Cooke, Frederick H. Am. J. Pol. 3:58 (1893.) 71

——. "Problems of City Government." Godkin, E. L. Address before the American Acad. of Pol. and Soc. Sci., March 16, 1894. Ann. Am. Acad. Pol. Sci. 4:857 (1894). Separate paper, 26 pp. 25c. 72

——. "Problem of City Government." Janes, L. G. New York, D. Appleton & Co., 1892. 40 pp. 10c. 73

——. "Problem of City Government." Low, Seth. Notes to J. H. Univ. Studies No. IV. 74

——. "Problem of Municipal Government." Low, Seth. Address at Cornell University, March 16, 1887. Printed by the University. Same subject, Civil Service Reformer, April, 1889. 75

——. "The Municipal Problem." Wilder, A. P. New Haven, 1891. Printed for the New Haven Chamber of Commerce. 78 pp. 76

——. "Problem of City Government." Will, T. E. Am. Mag. Civics 7:231 (1895.) 77

——. "Why We Must Solve the Municipal Problem." Larocque, Jos. and others. New York, Published by the City Club, 1896. 12 pp. 78

"Property and Good Municipal Government." Real Estate Rec. and Guide, Feb. 24, 1894, p. 292. 79

City Government, General Works and Unclassified.—*Continued.*

"Recent Books on City Government." Judson, H. P. Dial 18:147 (1895.) 80

"Responsibility in Municipal Government." Hyslop, James H. Forum 28:469 (Dec., 1899); Kelley, F. W. Am. J. Pol. 4:449 (1894.) 81

"Some Neglected Points in Municipal Government." Rowe, Leo S. Address before the American Acad. of Pol. and Soc. Science, Dec. 20, 1893. Same subject, Public Opinion 19:810 (1895.) 82

"Study of City Government: An Outline of the Problems of Municipal Functions, Control and Organization." Wilcox, Delos F. New York, Macmillan Co., 1897. 12mo, 268 pp. Cl. $1.50. 83

——. "Study of the Science of Municipal Government." Prichard, Frank P. Ann. Am. Acad. Pol. Sci. 2:450 (1892.) Also in California Municipalities 1:73 (Oct., 1899.) 84

——. "Studies in Municipal Government." Mead, E. D. Lend a H. 4:352 (1889.) 85

Syllabi. "City Government." Commons, John R. Syllabus of a course of six lectures delivered at Indiana University, 1895. Paper, 29 pp. 86

——. "City Government." (Outline of ten lectures.) Commons, John R. Albany, Extension Department University of New York, May, 1898. 12mo, 69pp. 87

"Unofficial Government of Cities." (Assumption of municipal functions by private citizens or organizations, bossism, charity.) Wheeler, Everett P. Atlan. 85:370 (March, 1900.) 88

"Cities as Units of Our Polity." Martin, William R. No. Am. 128:21 (1879). 89

"Civic Outlook, The." Waite, Henry Randall. Arena, Aug. 1897. 90

"Civic Renaissance, Our." Shaw, Albert. R. of Rs. 11:415 (1895). 91

Civilization of the City. Férrero, G. Revue des Revues, Jan. 1, 1897. 92

——. The City and Civilization. Adams, Alva. City Govt. 1:130 (Dec. 1896). 93

"Coming City, The." Commons, John R. Our Country 5:123 (April, 1897). 94

"Commercialism, The Capture of Government by." Chapman, John Jay. Atlan. 81:145 (Feb. 1898). 94a

——. Causes and Consequences. Chapman, John Jay. New York, Scribner, 1898. 12mo, 166 pp. $1.25.

Consolidation of Cities, Incorporation of Suburbs. "Municipal Co-operation vs. Municipal Consolidation." Baker, M. N. Mun. Aff. 3:18 (March, 1899); anon. Engng. News 41:104 (Feb. 16, 1899). 95

"Continuing City, A." Jordan, David Starr. Ind. 51:1340 (May 18, 1899), 51:1406 (May 25, 1899), 51:1545 (June 8, 1899.) 96

Corporations, Law of Municipal, Powers of.

"Cases on Selected Topics in the Law of Municipal Corporations." Smith, J. Cambridge, Harvard Law Review Pub. Ass'n, 1898. $1.25. 97

"Commentaries on the Law of Municipal Corporations." Dillon, John F. Boston, Little, Brown & Co., 4th ed. 1890. 1516 pp. $12. 98

"Company Law, Commentaries on the Law of Public Corporations, including Municipal Corporations and Political and Governmental Corporations of every kind." Beach, Chas. F. Jr. Indianapolis, Bowen, Merrill & Co., 1893. 2 vols. 1692 pp. $12. 99

"Constitutional Law of the United States, The." von Holst, H. Chicago, Callaghan & Co., 1887. 369 pp. (Sec. 102, pp. 329-36 on Cities.) 100

"Constitutional Limitations." Cooley, Thomas M. Boston, Little, Brown & Co., 1890. 6th edition, 885 pp. $6. (Chapter VIII, pp. 223-310, on "The Several Grades of Municipal Government.") 1

"Constitutional Restrictions on Municipal Corporations." Berryman, J. R. Am. Law R. 22:403 (1888). 2

"Liability of Municipal Corporations as upon Implied Contracts." Thompson, Seymour D. Am. Law R. 33:707 (Sept.-Oct. 1899). 3

"Municipal Corporation Cases." Michie, T. J. Charlottesville, Va., R. B. Michie & Co., 1899. 8vo, 796 pp. Cloth, $5. 4

Local Government, Including Municipal Government. (See under City Government, etc., above.)

City Government, General Works and Unclassified.—*Continued.*

"Powers of Municipal Corporations." Goodnow, F. J. City Govt. 2:182 (June, 1897); Pro. of the Louisville Conf., 1897. See 6-18d; Pingrey, D. H. Central Law Journal, 22:318 (1886). 5

"Management of Cities." Butts, I. Galaxy 13:173 (1872). 6

"Misgovernment of Great Cities." Crandon, F. P. Pop. Sci. Mo. 30:296, 520 (1887). 7

——. "Municipal Misgovernment." Compton, Lenox. Belford's M. 5:903 (1890). 8

——. "Municipal Misrule." Parkhurst, Charles H. Homilectic Review May, 1892. See also Christian at Work Feb. 2, 1893. 9

——. "Municipal Misrule: Its Causes and Remedies." Baldwin, F. Spencer. Self-Cult. 9:145 (April, 1899). 10

——. "Mayor Harrison on Misgovernment." Harrison, Carter H. City Govt. 7:35 (Aug. 1899). 11

——. "Remedies for Municipal Misgovernment." Fiske, Amos K. Forum 3:170 (1887). 12

——. "Why Cities are Badly Governed." Fassett, J. Sloat. No. Am. 150:631 (1890); anon. City and State 7:215 (Oct. 5, 1899). 13

"Modern City Life." Spectator No. 3680, p. 45 (Jan. 14, 1899); Mun. & Ry. Rec. 4:61 (Feb. 15, 1899). 14

Municipal Corporation, Law of. (See under Corporations above.)

Municipal Government, Municipal Administration. (See under City Government above.)

"Municipal Progress." Quincy, Josiah. Coming Age Jan. 1899. 15

Municipal Reform, Reform Organization, etc.

"The City." (General reform). Ch. V. Washington Gladden's "Social Facts and Forces." New York, Putnam, 1897. 235 pp. $1.25. 16

"The City, A Study with Practical Bearings." Stevens, Charles E. New York, J. J. Little & Co., 1885. 13 pp. 17

City and Social Reform. Pp. 278-295 Encyc. Soc. Ref. See 1-3.

"Closing Work of the Nineteenth Century." (Municipal Reform.) Capen, Samuel B. Indianapolis Conf. p. 116, 1898. See 6-18e. 17a

"Commercial Organizations and Municipal Reform." Ritchie, Ryerson. Pp. 118-128, Louisville Conference, 1897. See 6-18d, also under Business Men above. 18

Conferences. "Proceedings of the First National Conference for Good City Government." Held at Philadelphia Jan. 25 and 26, 1894. Philadelphia, published by the Municipal League, 1894. 386 pp. (With an extensive Bibliography of "Municipal Government and Reform," p. 341.) 18a

——. "Proceedings of the Second National Conference for Good City Government." Held at Minneapolis, Dec. 8-10, 1894; and of the First Annual Meeting of the National Municipal League and of the Third National Conference for Good City Government, held at Cleveland, May 29, 30 and 31, 1895. Philadelphia, published by the National Municipal League, 1895. 1 vol. 544 pp. 18b

——. "Proceedings of the Third National Conference for Good City Government and of the Second Annual Meeting of the National Municipal League." Held at Baltimore May 6, 7 and 8, 1896. Philadelphia, National Municipal League, 1896. 308 pp. 18c

——. "Proceedings of the Louisville Conference for Good City Government and of the Third Annual Meeting of the National Municipal League, May 5, 6, 7, 1897." Philadelphia, National Municipal League, 1897. 8vo. 294 pp. $1. 18d

——. "Proceedings of the Indianapolis Conference for Good City Government and the Fourth Annual Meeting of the National Municipal League, held November 30, December 1-2, 1898." Philadelphia, National Municipal League, 1898. 8vo, 273 pp. Cloth $1. 18e

——. "Proceedings of the Columbus Conference for Good City Government and the Fifth Annual Meeting of the National Municipal League, held Nov. 16, 17, 18, 1899." Philadelphia, National Municipal League, 1899. 8vo. 280 pp. Cloth, $1. (Papers in above volumes indexed separately). 18f

——. "Cleveland Conference for Good City Government." Woodruff, C. R. Am. Mag. Civics 7:167 (1895). 19

——. "Letters from Mayors and Councilmen Regarding a National Conference of City Officials." City Govt. 3:9, 45 (July, Aug. 1897). 20

City Government, General Works and Unclassified.—*Continued.*

"Cosmopolis City Club." (A story of municipal reform). Gladden, Washington. New York, Century Co., 1893. 135 pp. $1. (The "Cosmopolis City Club" may also be found in the Century Magazine 45:395, 566, 780.) (1893.) 21

"Good Citizenship." Essays on "Social, Personal and Economic Problems and Obligations," separately indexed.) Edited by J. E. Hand. London, George Allen, 1899. 474 pp. 22

Good Government of Cities. Lea, Henry C. Hrprs. Wkly. 38:79 (1894); Welsh, Herbert. Am. J. Pol. 5:67 (1894); Woodruff, C. R. Pub. Opin. 18:536 (1895). 23

"Good Government and Good Citizenship, For." Giles, William A. Chicago, 1894. 18 pp. 24

Ideal City, The. "La Cité Idéale." Fournière, Eugene. Rev. Soc. 28:263 (Sept. 1898). 25

"Improved Municipal Government." Fitzgerald, T. J. City Govt. 1:40 (1896). 26

——. "Municipal Government, Improvement in." Ely, R. T. Christian Union Oct. 9, 1891. 27

"Key to Municipal Reform." Godkin, E. L. No. Am. 151:422 (1890). 28

——. "Municipal Problems: A Discussion of the Model Charter of the National Municipal League." Baldwin, Henry De Forest. Mun. Aff. 3:3 (March, 1899); anon. Engng. News 40:344 (Dec. 1, 1898). 29

"Local Government, Christian Socialism and." Russell, George W. E. p. 236 "Good Citizenship." See 7-22. 29a

"Model Charter for American Cities, Elements of a." James, Edmund J. p. 154, Proc. Second Natl. Conf., 1895. See 6-18b. 29b

"Modern Municipal Reform." McKelway, St. Clair. J. Soc. Sci. No. 34, p. 126 (Nov. 1896). 30

——. "Municipal Government, How Corrupted and How Reformed." Independent, Sept. 13, 1891, p. 1-13. Also published in pamphlet form by the Independent, 1894. 64 pp. (Papers by Otto Kempner, W. Harris Roome, Chas. A. Schieren and others.) 31

Municipal Reform, Articles on. Adams, Charles Francis. Springfield (Mass.) Weekly Republican March 13, 1893; Bemis, E. W. Dial 16:175 (1894); Bridgman, R. L. New Eng. M. 11:698 (1895); Brown, George Morgan. New Englander 45:152 (1886); Crehore, C. F. Lend a Hand, Extra No., Vol. IV, March, 1889; Field, David Dudley. Albany Law Journal 48:355 (1893); Garvin, L. C. F. Arena 10:570 (1894); Hart, T. N. and others. No. Am. 153:580, 591 (1891); Hatton, Joseph. Cent. 46:155 (1893); Kasson, John A. No. Am. 137:218 (1883); Pingree, H. S. Arena 17:707 (April, 1897); Strong, W. L. Gunton's 13:327 (Nov. 1897); Teall, O. S. Cosmopol. 10:564 (1891); Tolman, Wm. Howe. Arena Oct. 1896; Will, T. E. (with a brief bibliography) Arena 10:555 (1894); anon. Our Day 8:291 (1891); Other Side 1:9 (July 8, 1899). 32

"Municipal Reform Needed." Parkhurst, Charles H. No. Am. 158:197 (1894). 33

——. "Municipal Reform in the United States." Devlin, Thomas C. New York, Putnams, 1896. 174 pp. 75 cents. (Chapter I, p. 3, Reform Efforts; Chapter II, p. 19, American Conditions; Chapter III, p. 45, Elections; Chapter IV, p. 63, Municipal and State Politics; Chapter V, p. 85, Civil Service Reform in Cities; Chapter VI, p. 105, Cost of City Government; Chapter VII, p. 135, Officers, Their Powers and Duties; Chapter VIII, p. 155, The Official, the Press and the People.) 34

——. "Municipal and Federal Reform." Nation 31:454 (1880). 35

——. "Municipal Reform Projects." Gardner, Rathbone. Advance Club Pubs. Providence, R. I. 1891. 36

"The New Patriotism—A Golden Rule Government." Jones, Samuel M. Mun. Aff. 3:455 (Sept. 1899), Public Improvements 1:231 (Oct. 1, 1899), Prog. Age 17:427 (Oct. 2, 1899), Other Side 1:214 (Nov. 4, 1899). 37

Obstacles to Municipal Reform. Low, Seth. Forum 5:260 (1888); Macomber, J. K. Midland Monthly March, 1898. 38

Organizations, Municipal Reform. "Constitutions and By-laws of the Municipal League of Philadelphia; City Club of New York; Citizens' Association of Boston; Baltimore Reform League; Civic Federation of Chicago; Good Government Club of San Francisco; Law Enforcement Society of Brooklyn, and Civic Club of Philadelphia." Phila. Pubs. of the Natl. Mun. League. Pamphlet No. 4. 1895. 36 pp. 39

——. "Proposed Constitutional Amendment." (Committee of Ten of the National Municipal League). Pro. Indianapolis Conf., p. 16, 1898. See 6-18e.

City Government, General Works and Unclassified.—*Continued.*

——. "Proposed Municipal Corporations Act." (Committee of Ten of the National Municipal League.) Pro. Indianapolis Conf. p. 25, 1898. See 6-18e.

——. "Report of the Committee on Municipal Reform." (Committee of Ten of National Municipal League.) Pro. Indianapolis Conf. p. 1, 1898. See 6-18e.

——. "Law Enforcement Societies." Elliott, George Frederick. p. 482, Proc. Second Natl. Conf. for Good City Govt., 1895. See 6-18b. 40

——. "Law and Order Leagues." Pamphlet prepared and published by the Citizens' Law and Order League of Connecticut. New Haven, 1892. 16 pp. 41

——. "Law and Order Leagues of Connecticut." Prince, Walter F. Pamphlet, reprinted from the "Connecticut Citizen." 1895. 22 pp. 42

——. "Law and Order Movement and the Citizen." Wilder, A. P. Lend a H. 12:437 (1894). 43

——. "Work of Law and Order Leagues." Lend a H. 12:295 (1894). 44

——. "Movement for Municipal Reform." Woodruff, Clinton Rogers. No. Am. 167:410 (Oct. 1898). 45

——. "Municipal Reform Movements in the United States." Tolman, Wm. Howe. New York, Fleming H. Revell & Co., 1895. 219 pp. $1. 46 ✓

——. "Municipal Government and Young Men's Municipal Clubs." Shaw, Albert. p. 5, New Series No. 1. Publications of the American Institute of Civics. New York, 1895. 21 pp. 20 cents. 47

——. "Municipal Leagues and Good Government Clubs." Welsh, Herbert. p. 146, Proc. Second Natl. Conf., 1895. See 6-18b. 47a

"Party Politics, Municipal Reform as Related to." Boyeson, I. K. Address. Chicago, 1893. 48

"Practical Municipal Reforms." Gunton's 16:388 (May, 1899).

"Problem of Municipal Government, The." Batten, J. H. Arena 24:589 (Dec. 1900). 49

"Programme of Municipal Reform." MacVeagh, Franklin. Am. J. Sociol. March, 1896. 50

——. "A Municipal Program, Report of a Committee of the National Municipal League. (Contains the Model Charter—see above—and papers in its support. Part of the same material appeared in the report of the Indianapolis Conference.) New York, Macmillan, 1900. 8 vo. 246 pp. Cl. $1. 51 ✓

——. "Need of a Positive Programme of Municipal Reform." Williams, Leighton. Arena 9:644 (1894). Also published as Municipal Programme Leaflet No. 1. New York, 1894. 10 pp. 5 cents. 52

——. "Positive Programme Progress." Scudamore, William. Municipal Programme Leaflet No. 7. New York, 1895. 11 pp. 5 cents. 53

"Progress of Municipal Reform." Woodruff, C. R. Outlook 49:958 (1894), Mun. Aff. 1:301 (June, 1897). 54

"Proper Standard for Municipal Affairs, The." Etting, Theodore M. Municipal League of Philadelphia Pubs, 1894. 55

"Reforms in State and City Government and Their Relation to Practical Politics." Cowen, John K. Taxpayers' Association of Baltimore. Addresses, 1889. 85 pp. 56

"Social and College Settlements of America and Their Relation to Municipal Reform." Alden, Percy. Outlook 51:1090 (1895). (See also **Settlements.**) 57

"Social Reform and the Church." Commons, John R. New York, T. Y. Crowell & Co., 1894. 176 pp. 75 cents. (Municipal Monopolies, pp. 121-51.) 58

"Some Suggestions for Municipal Reformers." Wilby, Chas. B. Address at Cincinnati, March 8, 1891. 59

"State, Relation of the, to Reform in Municipal Government." Bowles, Samuel. Am. J. Soc. 9:140 (1877). 60

"Step Toward Municipal Reform, A Definite." Welsh, Herbert. Forum 17:179 (1894). 61

"Voluntary and Temporary (Reform) Movements, Results Obtained by." Low, William G. p. 136, Proc. Second Natl. Conf., 1895. See 6-18b. 62

"Unorganized Municipal Reform." Cent. 41:789 (1891).

"Women, Relation of,—to Municipal Reform." Mumford, (Mrs.) Mary E. p. 135, Proc. (First) Natl. Conf., 1894. See 6-18a. 62a

——. "Relation of Women to Municipal Reform." Welsh, Herbert. Printed by the Civic Club of Philadelphia, 1894. 63

City Government, General Works and Unclassified.—*Continued.*

"Municipality, Old and New, The." (Comparison of English and American municipalities.) Baxter, James Phinney. New Eng. M. 17:469 (Dec., 1897.) 64

"Needs of the City, The." Ely, R. T. Address before the Evangelical Alliance, Dec. 4, 1889. Published by the Alliance. 65

"Patriotism, Municipal." Barrows, John H. A sermon preached at Plymouth Church, Chicago, Nov. 27, 1890, 22 pp.; Fortune, William. Other side 1:25 (July 22, 1899). 65a

"Problem of the City, The." Woodruff, Clinton Rogers. Am. M. Civics, Dec., 1896. 66

"Problem of Next Century's City." Strong, Josiah. No. Am. 165:343 (Sept., 1897.) 67

Self-Government. "Die Selbstverwaltung in politischer und juristischer Bedeutung." Hatschek, Julius. Staats- und Völkerrechtliche Abh. Bd. 2, Hept. 1, 1898. 8vo, 236 pp. 68

——. "Principles of Self-Government, Applied to Townships, Cities and Villages." Matteson, Andre. Chicago, 1893. 48 pp. 30 cts. 69

"Social Failure of the City, The." Rogers, [Mrs.] Emma Winner. Bib. Sac. 55:143 (Jan., 1898.) 70

"Social Problems of Great Cities." James, L. G. Unitarian R. 39:309 (1893.) 71

"Social Waste in a Great City, The." Seaman, Louis L. Science 8:283 (1886.) 72

"Work of Cities, The." Low, Seth. Lend a H. 4:255 (1890.) 73

Aachen, Germany. (Aix la Chapelle.)

City Plan. "Aachens Bebauungsplan und Bauliche Zukunft." Stübben, J. Deutsche Bauz., p. 100, 1880. 74

Plan for Laying Out of Northern Aachen. "Konkurrenz für Pläne zur Bebauung des Nördlichen Theils der Stadt Aachen." Deutsche Bauz., pp. 90, 290, 1878. 75

Water Works of Aachen, Extension of the. "Die Erweiterung des Wasser Werkes der Stadt Aachen." Zeitschr d Ver Deutscher Ing. Sept. 11, 1898. 76

Abattoirs, Public.

See also Biarritz (France), Birmingham (Eng.), Germany, London, Paris.

"Abolition of Private Slaughter Houses." Cridlan, J. J. Land M. Feb. 1899. 77

"Advantages of Public Abbattoirs." Littlejohn, Harvey. San Rec. 20:167 (Aug. 13, 1897.) 78

Compulsory Slaughter Houses. "Ueber obligatorische Schlachthausanlagen." Brandau, L. Kassel, Kessler, 1883. 1m. 79

——. "Wesen und Wirkungen d. Schlachthauszwanges." Mascher, H. A. Dortmund, Köppen'sche Buchh., 1888. 1m. 20 pf. 80

Municipal Abattoirs and Their Mechanical Equipment. "Städtische Schlachthöfe und deren Maschinelle Einrichtungen." Witz, Gustav. Zeitschr. d. Oest. Ing. u. Arch. Ver. 52:437 (July 13, 1900.) 81

"Municipal Authorities and Public Slaughter Houses." Parkes, E. Sanitarian 42:97 (Feb., 1899), J. San. Inst. 20:23 (April, 1899.) 82

"Municipal Slaughter Houses." London, The Fabian Society, 1900. 4pp. Pamphlet, 1d. 83

"Public Slaughter Houses." Richardson, B. W. New R. 8:631 (1893). 84

"Public Slaughter Houses Considered from a Humane and Hygienic Standpoint." May, J. San. Rec. 9:419 (Nov. 10, 1899). 85

"Report by the Architect upon Public Slaughter Houses in Continental Cities visited by him. Photographs and Plan of Abattoir." 4d. L. C. C. Doc. 405 (1900).

"Slaughter Houses and Slaughter House Inspection." Anderson, G. H. San. Rec. Sup. No. 31, p. 9 (Aug. 1899). 86

Aberdeen, Scotland.

"Electric Tramways, The Aberdeen Corporation." Ty. & Ry. World 9:5 (Jan, 11, 1900). 87

"Water Supply, Aberdeen and Its." San. J. 4:545 (Jan., 1898.) 88

Accounting, Municipal. (See under **Finance.**)

"**Acton, England,** Sewage Treatment at." Fuertes, James H. Engng. Rec. 41:418 (May 5, 1900.) 89

Adelaide, Australia.

"City of Adelaide." Mun. J. 9:237 (March 30, 1900.) 90

"Municipal Extension in Relation to Greater Adelaide." Pp. 7-13 in "Municipal Extension and Other Essays." Ellery, T. George. Adelaide, W. K. Thomas & Co., 1899. 12mo, 51 pp. Pamphlet. 91

Advertising.

"A Beautiful World: Journal of the Society for Checking the Abuses of Public Advertising." (Contains proceedings of the Society, articles on the abuse of public advertising, drafts of bills to regulate such abuses, etc.) London, printed by John Bale & Sons. Distributed gratis.

"Advertising Run Mad." Warner, John DeWitt. Mun. Aff. 4:267 (June, 1900), 4:772 (Dec., 1900.) 92

"Age of Disfigurement." (Against Abuses of Public Advertising.) Evans, Richardson. London, Remington & Co., 1893. 8vo., 112 pp. 1s. 93

"Checking Bill Board Nuisance." Olmsted, Frederick Law, Jr. City Govt. 9:6 (July, 1900). 94

"**Africa,** Street Railway Affairs in South." Stowe, J. G. St. Ry. J. 16:415 April 28, 1900.) 95

Aix la Chapelle. (See **Aachen.**)

"**Alameda, Cal.** Referendum." Dodson, G. R. Ann. Am. Acad. Pol. Sci. 13:131 (Jan. 1899). 96

Albany, N. Y.

"Municipal Condition of Albany." Thacher, John Boyd. p. 137 Proc. Third Natl. Conf., 1898. See 6-18c. 97

Description and Statistics of Albany, N. Y., in 1800. Census. See 1-7

"History of the City of Albany." Weise, A. J. Albany, Bender. 1884. 4to, 520 pp. $5. 98

——. "Albany Fifty Years Ago." Lossing, Benson J. Harper's M. 14:451 (1857). 99

——. "Collections on the History of Albany from Its Discovery to the Present Time." Munsell, Joel. Albany, N. Y., 1865-71. 4 vols., 8vo. $30. 100

——. History of Albany, N. Y. Battershall, W. W. See 1-4b., 1-7. 1

"Water Filtration Plant, The Albany." Hazen, Allen. Pro. Am. Soc. Civ. Engs. 26:528 (April, 1900); Engng. Rec. 41:317 (Apr. 7, 1900); Mac Harg, Martin. Engng. Rec. 42:516 (Dec. 2, 1900); J. N. E. W. W. Assn. 14:291 (June, 1900); Engng. News 39:191 (Feb. 10, 1898), 40:254 (Oct. 20, 1898), 43:31 (Jan. 11, 1900), 44:88 (Aug. 9, 1900); Engng. Rec. 40:622 (Dec. 2, 1899); Sci. Am. 88:182 (Mar. 24, 1900); Mun. Engng. 18:297 (May, 1900.) 2

——. "Albany's Water Supply and Her Neighbors." Featherstonhaugh, J. D. Sanitarian 43:318 (Oct. 1899.) 3

——. "Notes on the Albany Water Works." Engng. Rec. 40:98 (July 1, 1899).

"**Aldershot [Eng.]** Sewage Disposal at." Dennis, Nelson F. Engng. Rec. 40:603 (Nov. 25, 1899). 4

"**Alexandria,** The Electric Railway of." St. Ry. J. 13:8344 (Dec., 1897.) 6

"**Algiers [Africa],** Electric Railway in." St. Ry. J. 15:209 (April, 1899); Ry World 7:133 (May 5, 1898.) 7

Allegheny City, Pa.

"Municipal Condition of Allegheny." Kennedy. Wm. M. p. 336 Proc. Second Natl. Conf., 1895. See 6-18b. 8

"Street Railways of Allegheny City and Pittsburg." St. Ry. Jour. May, 1890, p. 254, Oct., 1891, p. 1.

"Water Supply of Allegheny City and Pittsburg." Harlow, James H. Proceedings of the Engineers' Society of Western Pennsylvania, March, 1883. 9

——. "Filter Crib of the Allegheny Water Works." Engng. News 43:328 (May 17, 1900). 10

"**Alliance, Ohio,** Sewage Disposal at." Engng. Rec. 41:31 (Jan. 13, 1900.) 11

Allotments. (See **Vacant City Lots, Cultivation of.**)

Altoona, Pa.

"Sewage Disposal Plant at Altoona, Pa." Linton, Harvey. Mun. Engng. 13:11 (July, 1897); Engng. News 38:50 (July 22, 1897), p. 339, xiiith Annual Report of the State Board of Health * * * of Pennsylvania, Harrisburg, 1898. 12

"Water Works. Flood Water Channel, Altoona Reservoirs." Knight, Charles W. Engng. Rec. 40:386 (Sept. 23, 1899.) 13

Amballa (India), Water Works. Goument, Charles E. V. Engng. Rec. 39:473 (April 22, 1899). 14

Amiens France. "Les Tramways Electriques d'Amiens." L'Electricien May 13, 1899. 15

Amsterdam, Holland.

"Civic Institutions in Amsterdam: How the City is Kept Clean." de Jong, E. W. Elsevier's Geillustreerd Maandschrift July, 1898. 16

Lighting. "The Amsterdam Gas Works." Salomons, Henry H. Gas World (London) May 8, 1897; Am. Gas Lgt. J. 67:202 (Aug. 9, 1897). 17

"Prison of Amsterdam, The Municipal." Wines, Frederick Howard. Char. R. 9:282 (Sept. 1899). 18

"Sanitary Service in Amsterdam." Eckstein. Am. Arch. 28:84 (1890.) 19

Sewage Disposal. "Das Liernur System in Amsterdam." Gl. Annalen (March 1, 1898).

——. "Sewerage of Amsterdam." Downes, Edward. U. S. Consular Reports, Vol. xlvii, No. 173, p. 160 (Feb., 1895.) 20

"Telephones of Amsterdam, Municipal." Falkenburg, Ph.; Van Zanten, J. H. Mun. Aff. 4:24 (Mar., 1900); Mun. J. 9:441 (June 8, 1900); J. Nat. u. Stat. 20:79 (July, 1900.) 21

Amusements, Municipal.

"Amusements for the People." Spec. 67:220 (1891.)

"Amusements of the People." pp. 1-28, "Methods of Social Reform," by W. Stanley Jevons. London and New York, Macmillan, 1883. 383 pp. $3. 22

"Recreation for the People." Wingate, Chas. F. Lend a Hand, Jan. 1897. 23

Theatres, Municipal. (See **Theatres, Municipal.**)

Ancient Cities. (See under **History, Municipal.**)

"**Annapolis, Md.,** History of." Shafer, Sara Andrew. See 1-4c. 24

Antwerp, Belgium.

Charity. "Abandoned Children in Antwerp." Van Geert, Prosper. p. 16 "International Congress." Vol. V, 1893. (See under **Charities.**) 25

Appointment of Municipal Officers. (See under **Civil Service.**)

Architecture. (See also **Art, Building Laws, Housing.**)

See also Birmingham (Eng.), Boston, Cardiff, Dundee (Scotland), Edinburgh, Glasgow, Northampton (Eng.), Oxford (Eng.), Padua, Sheffield.

"Ancient Town Halls of Europe, The." Anderson, Rowand. Builder (London.) (Dec. 19, 1896), Arch. & Buil. 26:31 (Jan. 16, 1897.) 26

"Architectural Annual for 1900." Kelsey, Albert, Editor. Phila., Architectural League, 1900. 4to, 292 pp. 27

"Architecture and Citizenship." Hamlin, A. D. F. Pub. Imp. 2:265 (April 16, 1900). 28

"Arrangement of American City Architecture." Gardner, E. C. Engng. M. 4:201 (1892). 29

"Beautiful Cities." (Architecture.) Lethaby, W. R. Ch. II. p. 45 of "Art and Life and the Building and Decoration of Cities." (London.) Rivington, Percival & Co., 1897. 12mo, 260 pp. $2.40. 30

"City Hall Architecture in America." Ferree, Barr. Engng. M. 4:201 (1892). 31

Architecture—*Continued.*

"Civic Architecture from Its Constructive Side." Lamb, Chas. R. Mun. Aff. 2:46 (March, 1898). 32

"Color in the Architecture of Cities." Ricardo, Halsey. Ch. V. p. 211 of "Art and Life and the Building and Decoration of Cities." (London). Rivington, Percival & Co., 1897. 260 pp. $2.40. Article by same author on this subject in Builder (London) Dec. 12, 1896. 33

"Decoration of Public Buildings." Crane, Walter. Ch. III. p. 111. of "Art and Life and the Building and Decoration of Cities." (London.) Rivington, Percival & Co., 1897. 260 pp. $2.40. 34

"Government Buildings, Architecture of Our." Aiken, William Martin. Engng. M. 12:815 (Feb. 1897). 35

——. "Grouping of Public Buildings." Bush-Brown, H. K. Report of National Convention of Architectural Societies, p. 45, June 2-3, 1899. 36

——. "Interior Decorations of Public Buildings." Hayes, H. H. Our Day 16:311 (July, 1898). 37

"Municipal Buildings, Architecture of." Gardner, E. C. Engng. M. 8:609 (1895.) 38

"Restraints upon the Practice of Architecture." Robinson, John B. Engng. M. 11:307 (1896). 39

"School and School House Architecture." Gardner, E. C. Engng. M. 10:478 (1895). 40

"Street Architecture." Statham, H. H. Architect (London) Dec. 11, 1896. 41

Town Architecture. Stübben, J. Vom Fels zum Meer Nov., 1897. 42

"Value of Good Architecture in Cities." Ferree, Barr. Engng. M. 10:671 (1895). 43

"**Argentina**, Electric Railway Practice in." Manville, E. St. Ry. J. 15:693 (Oct., 1899); anon. same 15:69 (Feb., 1899.) 44

Art, Municipal. (See also **Architecture, Building Laws, Parks.**)

See also Belgium, Camberwell, Edingurgh, Italy, London, Netherlands, New York, St. Louis.

"Art Commission, The National." Sewall, Frank. Am. Arch. 52:6 (1896). 45

"Art and Labor." Starr, Ellen Gates. Chapter IX, p. 165, "Hull House Maps and Papers." 46

"Art League of the United States, The Public." Am. Arch. 51:86 (1896). 47

"Art and Life and the Building and Decoration of Cities. A Series of Lectures by the Members of the Arts and Crafts Exhibition Society, Delivered at the Fifth Exhibition of the Society in 1896." London, Rivington, Percival & Co. 1897. 12mo, 260 pp. $2.40. 48

"Art in Municipal Affairs." Other Side 1:14 (July 15, 1899). 49

"Baltimore Municipal Art Conference." Hrprs. Wkly. 43:1332 (Dec. 30, 1899); Mun. Aff. 3:706 (Dec. 1899). 50

"Beautiful Public Life, A More." Mead, Edwin D. New Eng. M. May, 1894. 51

Brussels Conference. (See Proceedings below.)

"City Æsthetics." Buls, Ch. Mun. Aff. 3:732 (Dec. 1899.) 52

"City Beautiful, The." Kriehn, George. Mun. Aff. 3:594 (Dec. 1899). 53

"Color, Civic Treatment of." Lamb, Frederick S. Mun. Aff. 2:110 (Mar. 1898). 54

"Civil Law Development." (Municipal Æsthetics from a Legal Standpoint.) Holbach, F. Mun. Aff. 3:715 (Dec. 1899). 55

"Development of Æsthetics in Cities." Boulden, Jane Long. Arena Q. 1:108 (June, 1900). 56

"Embellishment of Cities, The." Hrps. Wkly. 42:282 (March 19, 1898). 57

"'Garden Cities,' The Coming of." Mun. J. & London 8:928 (Aug. 18, 1899). 58

"Government Buildings, A Suggestion for Grouping; Landscape, Monuments and Statuary." Brown, Glenn. Arch. R. 7:89 (Aug. 1900). 59

"Ideal City, The." Ricardo, Halsey. Builder 78:613 (June 23, 1900), Am. Arch. 69:29 (July 28, 1900). 60

"Improvement in City Life, III." Robinson, Charles Mulford. Atlan. 83:771 (June, 1899.) 61

"Matters that Suggest Themselves." Warner, John DeWitt. Mun. Aff. 2:123 (March, 1898). 62

Monuments and Decoration of Cities. pp. 403-439. J. Stübben's "Städtebau."

Art, Municipal—*Continued.*

Darmstadt, Bergsträsser, 1890. 8vo, 561 pp. 32m. 63

Municipal Art. Bell, Edward Hamilton. Hrprs. Wkly. 38:401 (1894); Blashfield, Edwin Howland. Mun. Aff. 3:582 (Dec. 1899); Caffin, Charles H. Harper's 100:655 (April, 1900); French, Lillie H. Hrprs. Wkly. 37:371 (1893); Lamb, Frederick S. Mun. Aff. 1:674 (Dec. 1897); same reprinted in Mun. Engng. 14:61 (Feb. 1898); Loring, Charles M. Park & Cem. 10:61 (May, 1900); Sargent, C. S. Garden & F. 8:501 (1895); Tryon, Thos. Public Improvements 1:98 (July 15, 1899); anon. Garden & F. Jan. 15, 1896; Mun. J. and London 8:515 (April 28, 1899). 64

"Municipal Conditions Improving." Church, William G. Public Improvements 2:121 (Jan. 15, 1900). 65

"Municipal Improvement." Meade, Edwin D. Park & Cem. 10:92 (June, 1900.) 66

"Municipal Memorials." Stübben, J. Mun. Aff. 3:724 (Dec. 1899). 67

"Municipal Sculpture." Bitter, Karl. Mun. Aff. 2:73 (March, 1898). 68

"Mural Decoration." Reid, G. A. Canadian M. 9:501 (April, 1898). 69

"Mural Painting." Blashfield, Edwin Howland. Mun. Aff. 2:98 (March, 1898). 70

Museums. "Our Public Art Museums: A Retrospect." Robinson, Sir Charles. 19th Cent. Dec. 1897. 71

"Planning of Cities, The." See, Milton. Public Improvements 2:51 (Dec. 1, 1899), 2:75 (Dec. 15, 1899). 72

——. "The City's Plan." Harder, Julius F. Mun. Aff. 2:25 (March, 1898). 78

Proceedings of First International Congress on Public Art, Brussels, September 24-29, 1898. "Œuvre de L'Art Public. Premier Congrès International de L'Art Public tenu à Bruxelles du 24 au 29 September, 1898." Liège, Aug. Bénard, 1900. 4to, 196 pp. Paper. 74

"Public Art in American Cities." Mun. Aff. 2:1 (March, 1898). 75

Public and Art, The. Obrist, H. Kunstgewerbeblatt Feb. 1900. 76

Schools, Art in. "Pictures for Our Public Schools." Van Rensselaer, M. G. Hrprs. Wkly. 41:1295 (Dec. 25, 1897). (See also under **Schools.**) 77

"Stained Glass, A Plea for." Parkhurst, Henry L. Mun. Aff. 3:694 (Dec. 1899). 78

"Street Lighting, Art in." Foote, Allen, Ripley. Elec. Eng. 24:330 (Oct. 7, 1897), Prog, Age 15:465 (Oct. 15, 1897). 79

Ashland, Wis.

Water Works. "Masonry Covered Sand Filter Beds at Ashland, Wis." Wheeler, Wm. Engng. News 38:338 (Nov. 25, 1897). 80

——. "The Ashland Water Pollution Case." Engng. Rec. 39:67 (Dec. 24, 1898). 81

Asia.

Market Towns on the High Asiatic Plateaus. "Villes de Marchés sur les hauts Plateaux Asiatiques." Monstier, J. Science Sociale 28:464 (Dec. 1899). 82

Assessments, Special. (See **Finance.**)

Athens, Greece.

"City Government of Athens." Wilcox, Delos F. Ind. 49:1200 (Sept. 16, 1897). 83

History. "Stadtgeschichte von Athens." Curtius, Ernst. Berlin, Weidman, 1891. 8vo, 391 pp, 16 m. 84

Atlanta, Ga.

History, Description and Statistics of Atlanta, Ga., in 1880. See 1-7.

"Municipal Condition of Atlanta, Ga." Davis, A. H. p. 96 Proc. Third Natl. Conf., 1896. See 6-18c. 85

"Sewerage System of Atlanta." Hering, Ruolph. Engng. Rec. April 4, 1891 p. 294; Engng. News April 4, 1891, p. 328. 86

"Street Railway Move at Atlanta, Ga., An Important." Elec. W. & E. 34:224 (Aug. 12, 1899).

——. "Street Car Transfers in Atlanta, Ga." Mun. Rec. & Ad. July 31, 1897. 87

"Water Works at Atlanta, Ga." Engng. Rec. March 31, 1894. 88

——. "The Results of the Meter System in Atlanta." Hillyer, George. Engng. Rec. 38:292 (Sept. 3, 1898). 89

"Atlantic City, N. J. Some Passing Notes on American Gas Works." Am. Gas Light J. 68:660 (April 25, 1898). 90

Austin, Tex.

"Municipal Ownership at Austin, Texas." Hornaday, W. D. Elec. W. & E. 34:575 (Oct. 14, 1899), Other Side 1:198 (Oct. 28, 1899). 91

——. "The Austin, Texas, Argument against Municipal Ownership." Ind. 52:844 (April 5, 1900).

"Sewerage System, Austin, Texas." Engng. Rec. 37:429 (April 16, 1898). 92

Water Works. "The Failure of the Austin Dam." Parker, R. D. Engng. Rec. 41:372 (April 21, 1900); von Rosenberg, Wm., Jr. same 41:468 (May 19, 1900); anon. same 41:340 (April 14, 1900); Engng. News 43:250 (April 19, 1900). 93

Australia.

Charities. "Care of Children in Australia." Spence, Catherine H. p. 27 "International Congress," vol. V, 1893, see 43 99. 94

"City Government, Australian." Mun. J. & London 9:33 (Jan. 12, 1900). 95

——. "Australian Municipal Progress." Plummer, John. Mun. J. 9:583 (July 27, 1900). 96

Communistic Villages in South Australia. "Les Villages Communistes de l'Australie Méridionale." Vigouroux, Louis. R. Municipale 3:2063 (April 21, 1900), 3:2078 (April 28, 1900), 3:2092 (May 5, 1900). 97

Finances. "Local Government and Taxation in the Australian Colonies and New Zealand." Dilke, C.; Ware, Thomas Webb; Archer, W. H.; p. 233 "Local Government and Taxation." J. W. Probyn, editor, New York, Cassell, 1875. 5s. 98

"Referendum in Australia and New Zealand." Tomn, Lillian. Contemp. 72:242 (Aug. 1897). 99

"Social Experiments in Australia." Burgess, H. T. Arena 23:132 (Feb. 1900). 100

Austro-Hungary.

See also Budapest, Vienna and other principal Austrian cities.

Charities. "Armenpflege in den österreichischen Städten und ihre Reform." Mischler, Ernst. Wien, Deuticke, 1890. 2 m 1

——. "Poverty and its Relief in Austria." Menger. p. 224 "International Congress," vol. I, 1893, see 43-99. 1a

——. "Sketch of the Organization of Public Poor Relief in Austria." Probst, Friederick. p. 230 "International Congress," vol. I, 1893, see 43:99. 1b

——. "The Austrian Poor Law System." Sellers, Edith. p. 216 "International Congress," vol. I, 1893, see 43-99. 1c

Finances of the Larger Austrian Cities. (See under Statistics below).

Local and Municipal Government in Austro-Hungary. Demombynes. Vol. II. pp. 199-219, 258-284. See 2-11. 2

——. "Die Selbstverwaltungskörper." Ulbrich, J. VI. Kap. pp. 82-87. Vol. IV, 1, 1-3. Marquardsen. See 2-9. 2a

Pawnshops. "Story of a Philanthropic Pawnshop." (The Imperial Pawn Offices of Austria). Sellers, (Miss) Edith. National No. 170:243 (April, 1897). 3

Population. "Die Bevölkerung Oesterreichs." (Chs. V., VI. and VII. on Cities. Census of 1890). Rauchberg, Heinrich. Vienna, A. Hölder, 1895. 8vo, 530 pp. 3a

Statistics. "Oesterreichisches Städtebuch, statistische Berichte von grösseren österreich. Städten." Hrsg. durch die k. k. statis. Centralkommission, edited by Karl Theodor v. Inama-Sternegg and Josef Freih. v. Friedenfels. Biennial seventh issue, Vienna, 1897, 708 pp. 12 m. Each issue contains statistics on Vienna, Wiener-Neustadt, Salzburg, Marburg, Laibach, Trient, Prag, Aussig, Brüx, Budweis, Eger, Gablonz a. N., Jicin, Karlsbad, Pilsen, Reichenberg, Tetschen a. d. Elbe, Brünn, Iglau, Olmütz, Troppau and Krakau. 4

——. Statistics of Occupation and Social Condition. "Das Sociale Connubium in den österreichischen Städten. Inama-Sternegg, Karl Theodor. Statistiche Monatschrift 24:69 (Feb. and Mar. 1898). 5

Transit Facilities, Municipal. "Electric Railway Practice in Austria-Hungary." Ziffer, E. A. St. Ry. J. 15:685 (Oct. 1899). 6

Bahia. Electric Street Tramways. "Das Elektrische Strassenbahn in Bahia." Braun, Gustav. Elektrotech. Zeitschr. Sept. 8, 1898; anon. St. Ry. J. 15:207 (April, 1899). 7

"**Bakeries,** Municipal." Fabian Society Tract No. 94 Dec. 1900. 1d.

Baltimore, Md.

City Government, General References and Unclassified.

"Baltimore in Her Centennial Year." Logan, Charles T. Frank Leslie's Popular Monthly June, 1897. 8

"City Government of Baltimore." Bonaparte, Charles J. p. 87 Proc. (First) Natl. Conf. for Good City Govt., 1894. See 6-18a; Latrobe. F. C. Taxpayers' Assoc. of Baltimore, Addresses, 1898, p. 148. Thomas, Thaddeus P. J. H. Univ. Studies XIV:7 (1896). 25 cts. 9

"New Charter for Baltimore." Hollander, J. H. Ann. Am. Acad. Pol. Sci. 11:425 (May, 1898); anon. 12:307 (Sept. 1898); Nation 66:201 (March 17, 1898). 10

"Crisis in Baltimore, The." Bonaparte, Charles J. Good Govt. 15:27 (1896). 11

Description and Statistics of Baltimore, Md., in 1880. Census. See 1-7. 12

"The New Baltimore." Bonsal, Stephen. Harper 92:231 (1896). 13

"Court House, Baltimore's New." Arch. & B. M. 1:189 (March, 1900). 14

Economic and Financial History. (See under History below.)

"Elections, Report of the Committee on." Publications of the Reform League, 1895. 11 pp. 15

Finance. "Application of the Single Tax to Baltimore." Ogden, William J. Taxpayers' Association of Baltimore. Addresses, 1889. p. 122. 16

——. "Report of the Committee on Municipal Taxation." Publications of the Baltimore Reform League, 1895. (See also under Transit Facilities below.) 17

Fire Department. (See under Police below.)

"Future of Baltimore." Ely, R. T. pp. 157-62 and 178-88. "Problems of To-day." New York, Crowell, 1890. 296 pp. $1.25. 18

History. "The Chronicles of Baltimore, Baltimore Town and City from the Earliest Period." Scharf, J. T. Baltimore, Turnbull, 1874. 8vo. $1.50. 19

——. "Economic History of the Baltimore and Ohio R. R." Reizenstein, M. J. H. U. Studies, xvth series, Nos. 7 and 8. Baltimore, 1897. 87 pp. 50 cts. 20

——. "Financial History of Baltimore, The." Hollander, J. H. Baltimore, Johns Hopkins University Press, 1899. 8vo, 397 pp. Cloth, $2. 21

——. History of Baltimore, Md. Sioussat, St. George L. See 1-4c; anon. Census, see 1-7. 22

——. "The Monumental City, Past History and Present Resources." Howard, George W. Baltimore, 1873. 8vo. $1. 23

Housing. Slums of Baltimore. See the Seventh Special Report of the Commissioner of Labor on "The Slums of Great Cities." 1894. 24

"Libraries of Baltimore." Adams, Herbert B. Nation 34:116 (1882). 25

Lighting. "The System of the Brush Electric Company of Baltimore." Elec. World 31:267 (Feb. 26, 1898).

——"Preliminary Report of the Lighting Commission of the City of Baltimore." Hollander, Jacob H., Phelps, Charles E., Jr., and Baetjer, Edwin G. Baltimore, 1900. 8vo, 20 pp. 26

"Markets of Baltimore." Lathe, Agnes M. Chaut. Dec. 1896. 27

"Park, Druid Hill." Robbins, M. C. Garden & F. 7:233 (1894). 28

"Police, Our, History of the Baltimore Force." Folsom, De Francias. Baltimore, Ehlers, 1888. 546 pp. 29

——. "Reform in the Police and Fire Departments of Baltimore." Good Government 18:6 (July-Oct. 1900).

"Revolt in Baltimore, The Recent; its Results and Lessons." Howard, Charles Morris. p. 75 Proc. Third Natl. Conf., 1896. See 6-18e. 30

"Rule of the Criminal Classes in Baltimore." White, H. Nation 44:159 (1887). 31

"Sanitation of Baltimore." Billings, John S. Forum 15:727 (1893). 32

"Schools of Baltimore, Public." Rice, J. M. Forum 14:145 (1892). 33

——. "Public Educational Work in Baltimore." Adams, Herbert B. J. H. U.

Baltimore, Md.—*Continued.*

Studies xviith series, No. 12. Baltimore, 1899. 58 pp. 25 cents. 34

——. "Report of the Committee on Public Schools." Publications of the Baltimore Reform League (1895). 35

"Sewerage of Baltimore, The." Allen, Kenneth. Proc. Am. Soc. Mun. Imp. (5th yr.), Pt. II. p. 57 Oct. 1898. City Govt. 5:227 (Dec. 1898); Mun. Engng. 16:20 (Jan. 1899); anon. Engng. Rec. 37:53 (Dec. 18, 1897); 40:291 (Aug. 26, 1899). 36

——. "Report of the Committee on Sewers, etc." Publications of the Baltimore Reform League (1895). 37

Statistics. "Vital Statistics of the District of Columbia and Baltimore covering a period of six years ending May 31, 1890." Billings, John S. Washington, Government Printing Office, 1893. 241 pp. Eleventh Census of the United States. 38

"Streets, Opening and Closing of." Publications of the Baltimore Reform League, 1895. 9 pp.

——. "McCulloh St. Opening. A Misfit Improvement." Brown, Frederick J. Baltimore, Cushing & Co., 1891. 10 cents. 39

——. "Streets and Slums, a Study in Local Municipal Geography." Brown, Frederick J. Baltimore, Cushing & Co., 1892. 21 pp. Maps. 35 cents. 40

Taxation, Single Tax. (See under Finance above.)

Transit Facilities. "Electric Street Railways in Baltimore, Md. Notes from the Field." Fairchild, C. B. Elec. Eng. 25:569, 742 (May 26, June 30, 1898); anon. St. Ry. J. Feb. 1894. 41

——. "Attempt to Increase Taxes and Regulate Transfer Privileges in Baltimore." St. Ry. J. 16:51 (Jan. 6, 1900). 42

——. "Rapid Transit in Baltimore." P. 51. "Rapid Transit in Foreign Cities." Parsons, W. B. New York, 1894. 43

Unemployed. "How Baltimore Banished Tramps and Helped the Idle." Gould, E. R. L. Forum 17:497 (1894). 44

——. "Problem of Tramps in Baltimore." Briscoe, M. S. M. Chr. Lit. 6:458 (1892). 45

"**Bandora,** The Sanitation of." Wallace, John. Ind. & East. Eng. 2:275 (April 1898). 46

Barcelona, Spain.

Competition for plans for a city park and the extension of Barcelona. "Konkurrenz für Anlage eines Stadtparkes und der Stadtweiterung zu Barcellona." Deutsche Bauz. p. 128, 1871. 47

"Electric Railways in Madrid and Bercelona." Armstrong, F. C. St. Ry. J. 15:75 (Feb. 1899); anon. Ry. World 8:1 (Jan. 5, 1899.) 48

"**Barking Town [Eng.],** Its Progress and Public Work." London 6:956 (Dec. 9, 1897.) 49

Basel, Switz.

Finance. "Progressive Taxation as levied in Switzerland, cantons Basel-Stadt, de Vaud, and Uri." Palgrave, R. H. T. Journal of the London Statistical Society 51:225 (1888). 50

Financial History. "Finanzverhältnisse der Stadt Basel in XIV. und XV. Jahrhundert." Schönberg, Gustav Fr. Tübingen, Laupp, 1879. 8vo, 821 pp. 18 M. 51

Housing. "Die Wohnungsenquête in der Stadt Basel." Bücher, Karl. Basel, Georg & Co., 1891. 8vo, 356 pp. 5 M. 52

Transit Facilities. "The Basle Electric Tramway." Schweiz. Bau. Oct. 30, Nov. 6, 13, 20, 1897; Ry. World 6:328 (Nov.1897.) 53

Unemployment, Insurance against v. Heckel, Max, Jr. Nat. Stat. 64:107-122 (1895); Jay, Raoul. R. Econ. Pol. 9:368-386 (1895); von Welck, A. Jr. Gesetz. Ver. Volks. 24:1005 (Heft 3, 1900); anon. Schweiz. Bl. 1:134 (1895); Yale R. 9:86 (May, 1900.) 54

——. "Die Gesetzgebung d. Schweizerkantone Bern, St. Gallen u. Basel bet. eine Versicherung gegen Arbeitslosigkeit." Garrelts, Fr. Goettingen, L. Horstmann, 1896. 2 S. m. 1 Tab. in Imp. Fol. 1 M. 55

Water Works. "Das Wasserwerk der Stadt Basel." Markus, A. Schweizerisches Bauwesen (Zurich) Oct. 8 and 10, 1896. 56

Batavia (Java), The Electric Tramway in. "Die Elektrische Strassenbahn in Batavia." Elek. Zeit. Oct. 26, 1899. 57

Bath (Eng.). "Municipal Roman Baths." Mun. J. & London 8:1187 (Nov. 3, 1899.) 58

Baths, Laundries and Lavatories, Public. (See also **Public Comfort Stations.**)

See also Bath, Berlin, Bilston, Birmingham, Boston, Brookline, Brighton (Eng.), Buffalo, Chicago, England under United Kingdom, Glasgow, Great Britain under United Kingdom, Harrogate, Liverpool, London, Munich, New York, Paris, Philadelphia, Pirna (Ger.), Pittsburgh, St. Pancras, St. Paul, Vienna, Yonkers.

"Arrangement of Public Baths, The." Engng. Rec. 39:383 (March 25, 1899.) 59

"Baths for the Poorest." Court, W. R. Arch. Sept. 29, 1899. 60

"Baths and Gymnasia, Playgrounds." Quincy, Josiah. City Rec. 1:517 (Sept. 3, 1898), Santarian 41:303 (Oct. 1898), Ann. Am. Acad. Pol. Sci., 12:444 (Nov. 1898), N. Y. Educa. 2:135 (Nov., 1898.) 61

"Baths in the Slums." Mun. J. & London 8:1103 (Oct. 6, 1899.)

"Baths and Wash Houses." Faure, John P. Municipal Program Leaflet No. 5, New York, 1894. 7 pp. 5 cts. 62

Bibliography. (See nos. 70 and 83 below.)

Civilizing Mission. "Die Culturaufgabe der Volksbäder." Lassar, O. Berlin, Hirschwald, 1889. 8vo, 44 pp. 30 pf. 63

"Free Public Baths." Sanitarian 38:424 (May, 1897.) 64

"Free Water for Private Baths." Case, L. N. Engng. Rec. 38:51 (June 18, 1898), City Govt. 4:211 (June, 1898), Mun. Engng 15:25 (July, 1898.) 65

"Lavatories." Tolman, Wm. Howe. Municipal Program Leaflet No. 6, New York, 1895. 10 pp. 5 cts. 66

"Municipal Free Bath, The." Stewart, Jane A. Our Day 19:11 (Jan., 1900.) 67

"Municipal Public Baths." Williams, Mary B. H. Citizen 1:251 (1896.) 68

"People's Baths." Gerhard, William Paul. Public Imp. 1:191 (Sept. 15, 1899.) 69

"People's Baths, The." Publications of the New York Association for Improving the Condition of the Poor. With Bibliography on Public Baths. 16 pp. 1896. 70

Plans for Public Baths, Prize. "Preistentwürfe für Volksbäder." Loewenstein, Franz. Gesund. Ing. 23:156 (May 31, 1900), 23:171 (June 15, 1900.) 71

"Private Initiative in Furnishing Public Bath Facilities." Kirkbride, Franklin B. Ann. Am. Acad. Pol. Sci. 13:280 (March, 1899.) 72

Public Baths. Brown, Goodwin. Char. R. 2:143 (1893); Foster, E. San. Plumb 17:25 (Sept. 1, 1899); Morris, Moreau. Sanitarian Sept. 1896; Tolman, Wm. H. Yale R. 6:50 May, 1897); anon. Outlook 52:545 (1895). See also p. 47, Report of the Tenement House Committee (N. Y. State), 1894. 73

——. "Public Baths and Cheap Baths for the People." Vachee, Francis. London, 1879. Pamphlet, 22 pp. 74

——. "Plea for Public Baths, with an Inexpensive Method for their Hygienic Utilization." Pamphlet, 46 pp. Reprinted from the Dietetic Gazette, May, 1891. 75

——. "Public Baths in Europe." Hartwell, Alfred M. Washington, Bulletin of the Department of Labor, No. 11, July, 1897, p. 434. 76

——. "Public Baths and Laundries." Donald, Robert. Outlook 53:285 (1896). 77

——. "Public Baths and Lavatories." New York Citizens' Union, Pamphlet No. 1, May, 1897. 12 pp. 78

——. "Public Baths and Wash Houses." Allsop, Robert Owen. New York, Spon and Chamberlain, 1884. 93 pp. $2.50. 79

——. "Public Baths and Wash Houses." Tiltman, Hessell. Builder 76:139 (Feb. 11, 1899). Jour. Roy. Inst. Brit. Arch'ts. Feb. 11, 1899, Am. Arch. 64:5 (April 1, 1899), 64:11 (April 8, 1899), 64:21 (April 21, 1899); Arch. & Buil. 30:123 (April 22, 1899), 30:131 (April 29, 1899), 30:159 (May 20, 1899), 30:167 (May 27, 1899.) 80

——. "Public Baths and Washhouses." Tiltman, A. Hessell. London, 1899. Pamphlet, 12 pp. 81

Public Comfort Stations. (See under **Public Comfort Stations**).

"Public Rain Baths in America." Fisk, Harvey E. Sanitarian 36:404 (1896); Morris, Moreau. Sanitarian, July, 1896. 82

Baths, Laundries and Lavatories, Public—*Continued.*

"Report on Public Baths and Public Comfort Stations." (With an extensive Bibliography.) Tolman, William Howe, Moreau Morris and William Gaston Hamilton, Committee. New York. Published by the Mayor's Committee on Public Baths and Public Comfort Stations, 1897. 195 pp. Ill. Cloth, $1; paper, 50 cts. 83

——. "Preliminary Report of the Sub-Committee on Baths and Lavatories, Committee of Seventy." New York, 1895. 15 pp. 84

"Social Arrows." Brabazon, Lord. (Parks, Play Grounds, Public Baths). London, Longmans, G. & Co., 1887. 85

"Systems of Public Baths." Brown, Goodwin. Public Imp. 3:314 (May 15, 1900). 86

"Why Public Baths are Essential to Public Health." San. Rec. 20:36 (July 9, 1897) 87

Battersea. (See also **London.**)

"Municipal Workshops, Battersea's." London 7:3 (Jan. 6, 1898), 7:49 (Jan. 27, 1898.) 88

"**Battle Creek, Mich.**, Electrolysis in." Brigden, W. W. Engng. Rec. 39:446 (April 15, 1899.) 89

Belfast, Ireland.

"Gas Engine Plant, The Belfast." Railroad Gaz. 29:728 (Oct. 15, 1897.) 90

Housing. "Workmen's Dwellings in Belfast." Munce, James. J. San. Inst. 19:41 (April, 1898.) 91

Lighting. "Cost of Illuminating Gas in Belfast." Taney, J. B. U. S. Consular Reports 53:516. 92

——. "Gas at 60 cents, Illuminating." Taney, James B. City Govt. 2:102 (April, 1897), Engng News 37:271 (April 29, 1897), Prog. Age 15:191 (May 1, 1897). 93

——. "The Belfast Municipal Electric Plant." (Editorial.) Elec. World 32:504 (Nov. 12, 1898.)

Transit. "Belfast Tramways." Ry. World 8:194 (May 11, 1899.)

Belgium.

City Government, General and Unclassified.

Cities. "Les Villes en Belgique." R. Municipale 3:1889 (Feb. 3, 1900).

Local and Municipal Government in Belgium. Vol. I. pp. 252-274, Demombynes. See 2-11. 94

——. Provincial Organization. "L'Organisation Provinciale en Belgique." R. Municipale 3:1871 (Jan. 27, 1900.)

Municipal Government in Belgium. Palgrave 2:831-832. See 1-2.

——. "The Provincial and Communal Institutions of Belgium and Holland." de Laveleye, Emile. p. 245 "Local Government and Taxation." See 4-57. 95

——. "Gemeinde- und Provinzialverfassung. Vauthier, Maurice. V. Abs. pp. 102-149. Vol. IV., 1, 4-6. Marquardsen. See 2-9. 93

Municipal Law. "Commentaire sur la loi du 30 mars, 1836, et les lois qui l'ont modifiée." Bivort, J. B. Bruxelles, Larcier. 9e edit. 278 pp. 1882. 5 fr. 97

——. "Loi Communale du 30 mars, 1836, Coördonnée avec les lois subsequentes." Larcier, Ferd. Bruxelles, Larcier, 1884. 1 fr. 50c. 98

——. "Responsibilité des Communes et de leurs Administrateurs." Peeters, L. J. Bruxelles, F. Larcier, 1888. 6 fr. 99

"Municipal System of Belgium." Shaw, Albert. Chap. III, p. 210, "Municipal Government in Continental Europe." See 1-6.

"Art in Belgium, Public." de Wolf, Bradford Colt. Self-Cult. 11:132 (April, 1900); anon. Mun. Aff. 2:14 (March, 1898.). 100

——. "Art in the Belgian Parliament." Wiart, Carton de. Mun. Aff. 3:742 (Dec. 1899.) 1

"Charity in Belgium." Van Geert, Prosper. p. 198 "International Congress," vol. I, 1893, see 43-99. 1a

——. "Charity in France and Belgium." Valleroux, Herbert. p. 135 "International Congress," vol. III, 1893, see 43-99. 1b

Belgium—*Continued.*

Elections, Municipal. "Code Electoral belge, Supplément contenant les Lois de 11 avril et du 12 septembre, relative aux Elections Communales" Scheyven et Holvoet. Bruxelles, E. Bruylant, 1895. 161 pp. 8vo. 3 fr. 50c. 2

——. "Commentaire de la Loi relative aux Elections Communales." Biddaer et Somerhausen. Bruxelles, imprimerie J. Janssens, 1895. 3

——. "Loi Electoral Communale, Commentaire de la Loi relative à la Formation des listes des Electeurs Communaux." Henri, Albert. Bruxelles. Société belge de Libraire, 1875. 75c. 4

Finance. "Traité des Taxes Communales." Bollie, J. Bruxelles, Larcier, 1881. 334 pp. 6m. 5

——. "City Taxes in Belgium." Roosevelt, George W. Consular Reports 58:438 (Nov., 1898.) 6

History. "Les Libertés Communales." Wauters, Alph. Bruxelles, Office de Publicité, 1878. 2 vols. 14 fr. 7

Housing. "Les Habitations ouvrières en Belgique." Royer de Dour, Hippolyte de Brussels, Société Belge de Libraire, 1890. 314 pp. Plates and diagrams. 7 fr. 50c. 8

——. "Logement de l'ouvrier et du pauvre en Belgique." Bertrand, Louis. Bruxelles, chez l'auteur, 1888. 3 fr. 50c. 9

Markets. "Le Colportage et les Marchés Publics en Belgique." Heins, Maurice. R. Municipale 3:1724 (Nov. 25, 1899.) 10

Municipal Control, Etc. "Expériences de Municipalisation de Services Publics en Belgique." Heins, Maurice. R. Municipale 3:1901 (Feb. 10, 1900.) 11

——. "La Politica Comunale dei Socialisti Belgi." Vinck, Emilio. Critica Sociale 10:9 (Jan. 1, 1900), 10:29 (Jan. 16, 1900). 12

Pensions. "Institutions de Prévoyance, Belgique." Duboisdenghien, L. (Paris Exposition series, Group XVI., Class 109.) Brussels, Bruylant-Christophe & Co., 1900. 8vo, 214 pp. 12a

Population. "La Belgique et ses grandes Villes au XIX. Siècle, La Population." Heins, M. Ghent, Ad. Hoste, 1897. 8vo. 1 fr. 13

"Proportional Representation and the Debates upon the Electoral Question in Belgium." Mahaim, Ernest. Ann. Am. Acad. Pol. Sci. 15:381 (May, 1900.) (See also Elections above.) 14

——. "La Représentation Proportionnelle en Belgique." Dumont, Hermann. R. Pol. e. Par. 22:524 (Dec. 10, 1899.) 15

——. "Le Mécanisme de la Représentation Proportionnelle dans le Nouveau Système Electoral Belge." Vanlaer, Maurice. R. Pol. e. Par. 25:67 (July 10, 1900.) 16

Referendum. "A Letter on the Referendum in Belgium." Van den Heuvel, J. p. xxxix. in "The Referendum in Switzerland," by Simon Deploige. London, Longmans, 1898. 8vo, 334 pp. 7s. 6d. 17

Taxation. (See under Finance above.)

Transit Facilities. "Belgian Tramways and Light Railways." Ry. World 7:101 (April 7, 1898.) 18

"**Bellary** Water Supply—Copper Hills Scheme." Nowroji, Hormusji. Ind. Engng. Sept. 25, 1897; Oct. 9, 1897. 19

Bergen. "Die Elektrische Strassenbahn der Stadt Bergen." Die Schmal Spurbahn, Nov. 1, 1897. 20

Berlin.

City Government, General and Unclassified.

"Berlin." Burbank, Emily M. Chaut. 26:355 (Jan., 1898); Ely, R. T. Nation 34:145, 245, 267 (1881); Spielhagen, Fr. Cosmopol. 14:515 (1893.) 21

——. "Berlin in 1889." Edwards, W. H. U. S. Cons. Rep. No. 120, 1890, pp. 165-76. 22

"Berliners." Spielhagen, Frederick. Cosmopol. 14:724 (1893.) 23

Festschriften. "Die öffentliche Gesundheits- und Krankenpflege der Stadt Berlin." (Contains not only descriptions of sanitary service, hospitals, asylums, etc., of the city, but also of water works, baths, sewerage, lighting, abattoirs, food inspection, markets, parks, street cleaning, and burial in Berlin.) Hrsg. v. den städt. Behörden. Festschrift d. Stadt Berlin dargeboten X. Internation-

Berlin—*Continued.*

alen Medizinischen Kongress. Berlin, August Hirschwald, 1890. 4to, 362 pp. 10m. 23a

——. "Beleuchtung, Wasserversorgung und Kanalisation der Stadt Berlin." Festschrift d. deut. Vereins v. Gas u. Wasserfachmännern. Berlin, 1883. 8m. 23b

——. "Die Stadt Berlin, Festschrift der Stadtgemeinde f. d. Teilnehmer am VII., internationalen Geographen-Kongress." (Particularly valuable for its accounts of the history, pp. 41-78, administration, pp. 99-114, and statistical offices of the city, pp. 267-277. Contains also much valuable scientific information regarding Berlin.) Buseman, M., editor. Berlin, 1899. 12mo, 371 pp. ill. map. 23c

"Government of Berlin." Gneist, Rudolph. Contemp. 46:769 (1884); Rowe, Leo S. Nation 55:221 (1892.) 24

——. "Berlin, A Study of Municipal Government." Baxter, Sylvester. Bulletin of the Essex Institute, Vol. XXI., 1889, Salem, Mass. Printed in pamphlet form by the Baltimore Taxpayers' Association, 1891. 25

——. "Report on the Government of Berlin." Coleman, Chapman. Foreign Relations Report No. 294, p. 478, 1881. Consular Reports, Nov. and Dec., 1888, p. 413 26

Abattoirs. (See under Festschriften above.)

Art. "Famous Monuments of Berlin." Park and Cem. 7:140 (Aug. 1897). 28

——. "Das Kaiserdenkmal auf der Schloss Freiheit zu Berlin." Deutsche Baus. March 20, 27, 1897. 29

Asylums. (See under Festschriften above.)

Baths. "Die Stadt Badeanstalten Berlins." Gesundheits-Ingenieur, March 15, 1899. (See also under Festschriften above.) 30

Building Laws and Regulations. "Bauordnung für die Stadt Berlin." Berlin, Julius Sittenfeld, 1877. 56 pp. 31

——. "Baupolizei in Berlin, Denkschrift über die Handhabung der." Parey, Karl. Berlin, Toeche, 1886. 29 pp. 1m. 32

——. "Berlin und seine Bauten." Bearbeitet und Herausgegeben vom Architekten Verein zu Berlin und der Vereinigung Berliner Architekten. Berlin, Wilhelm Ernst u. Sohn, 1896. 2 Vols., 873 and 680 pp. 33

Burial System. (See under Festschriften above.)

Charity. "Asyl für Obdachslose in Berlin." Spindler, Will. Berlin, Rubenow, 1870. 34

——. "Die Organisation der Privatwohlthätigkeit in Berlin." Breslauer, Bernhard. Berlin, Mamroth, 1891. 27 pp. 60 pf. 35

——. "Die Wohlfahrtseinrichtungen Berlins und seiner Vororte." Berlin, Hrsg. v. d. Auskunftsstelle d. deutschen Gesellschaft f. ethische Kultur, Verlag Julius Springer, 1899. 8vo, 427 pp. 3m. 36

——. "How Berlin Provides for its Destitute Children." Sellers, Edith. Econ. R. 10:35 (Jan., 1900.) 37

——. "Sociale Elend der Grossstädte Wien u. Berlin." Deutsch, Ed. Wien, Mayer u. C., 1878. 38

——. "Waisenpflege der Stadt Berlin." Fischer, A. Berlin, Oehmigke, 1892. 6m. 39

Council. "The City Council of Berlin." Jaines, Edmund J. Am. J. Sociol. 6:497 (Nov., 1900.) (See also under Elections below.) 40

Dust-Burning, The Berlin Investigation of. Oesterr. Monatschr. f. d. öffent. Baudienst, February, 1898. 41

Elections in Berlin, Municipal. Artibal, J. R. Municipale 3:1615 (Oct. 7, 1899); Brooks, R. C. Ann. Am. Acad. Pol. Sci. 15:480 (May, 1900). 42

Elevated Railways. (See under Transit Facilities below.)

"Finances, Berlin City." James, Edmund J. Ann. Am. Acad. Pol. Sci. 15:478 (May, 1900). 43

——. "Comparison as to Cost of Administration in Berlin and New York." Real Estate Rec. and Guide, Nov. 10, 1894, p. 673. 44

——. "Aufgaben der Berliner Communalverwaltung und die Erhöhung der Städtischen Steuern." Eberty, E. Berlin, Carl Heymann, 1878. 29 pp. 1m. 45

——. Comparison of Berlin and Paris. Ann. Am. Acad. Pol. Sci. 12:311 (Sept. 1898). 46

——. "Die Gemeindefinanzen von Berlin und Paris." Rowe, Leo S. Jena, Gustav Fischer, Pubs. Economic Seminary at Halle, 1893. 236 pp. 47

Berlin—*Continued.*

Fire Insurance in Berlin, Municipal. "Société d'Assurance Municipale Obligatoire contre les Risques du Feu à Berlin." Artibal, J. R. Municipale 3:2011 (March 31, 1900), 3:2030 (April 7, 1900). 48

Fire Protection. "Handbuch des Feuerlösch-Rettungswesens Berlins." Doehring, W. Berlin, Parey, 1881. 8vo, 310 pp. 10m. 49

Food Inspection. (See under Festschriften above.)

Garbage Disposal. "The Disposal of Garbage and Refuse—Berlin, Germany." Hering, Rudolph. Engng. Rec. 36:532 (Nov. 20, 1897). 50

——. "Der Neue Müllschmelzofen in Berlin." Häntzschel, W. Gesundheits-Ingenieur June 15, 1899; anon. Engng. M. 17:851 (Aug. 1899). 51

"Higher Life of Berlin, The." Soden, Herman von. Outlook 57:307 (Oct. 2, 1897). 52

History. "500 Jahre Berliner Geschichte." Streckfuss, Adolf. Berlin, A. Goldschmidt, 1899. 8vo, 807 pp. 12m. 53

——. "Berlin during the Barricades." de Circourt, Comte A. Revue de Paris June 15, 1897. 54

——. (See also under Festschriften above.)

Hospitals. (See under Festschriften above.)

Housing. "Berliner Wohnungsverhältnisse." Braun, Ad. Berlin, Verlag Vorwärts, 1893. 80 pp. 35 pf. 55

——. "Zur Berliner arbeiter Wohnungsfrage." Freund, Rich. u. Malachowski, Herm. Berlin, J. J. Heines Verlag, 1892. 52 pp. 1m. 60 pf. 56

——. "Die sociale Lage d. arbeitenden Klassen in Berlin." Hirschberg, Ernst. Berlin, Liebmann, 1897. 8vo, 311 pp. 5m. 50 pf. 57

——. "Die Wohnungsfrage und die Bestrebungen der Berliner Baugenossenschaft." Nathan, Paul. Berlin, Simon, 1890. 84 pp. 2m. 58

——. "Die Wohnungsverhaltnisse in Berlin, insbesondere die der ärmeren Klassen." Berthold, G. pp. 199-235 Hft. 31, Schr. d. Ver. f. Socialpolitik. 59

——. "Housing of the Working Classes in Berlin." Surveyor 18:566 (Nov. 16, 1900).

——. "Tenement Houses in Berlin." de Kay, Charles. U. S. Consular Reports Vol. XLVIII., No. 178, p. 382-386 (1895), Am. Arch. 49:49 (1895). 60

——. "Les Habitations Ouvrières à Berlin." Nérincx, Alfred. Ref. Soc. Jan. 1, 1899. 61

"Insane Asylum, Berlin." Edwards, W. H. Cons. Rep. No. 130, 1891, p. 595-600. 62

Kaiser Wilhelm-Strasse. "Die Bebauung der Kaiser Wilhelm-Strasse in Berlin." Centralbl. d. Bauverw. p. 53, 1885. 63

Lighting. The Municipal Gas Works of Berlin. "Die Städtische Gaswerke Berlins." Gesun. Ing. 23:145 (May 15, 1900). 64

——. "Regulations for Acetylene Lighting at Berlin." Prog. Age 16:11 (Jan. 1, 1898). 65

——. "Street Lighting of Berlin." Edwards, W. H. Cons. Rep., No. 128, 1891, pp. 47-54. 67

——. (See under Festschriften above.)

Markets. (See under Festschriften above).

Mayoralty Contest of 1898-9. "Berlin without an Oberbürgermeister." Brooks, Robert C. Ann. Am. Acad. Pol. Sci. 14:94 (July, 1899), same 15:294 (March, 1900). 68

Moabit Quarter, Development of. "Die Entwickelung des Stadttheiles Moabit und die Bauten auf dem Gelände der Baugesellschaft am kleinen Thiergarten." Deutsche Bauz. p. 413, 1885. 69

Parks. (See under Festschriften above.)

"Police of Berlin." Nation 59:140 (1894.) 70

——. "Le Police, la Crime et le Vice à Berlin." Raffalovich, Arthur. Rev. d. deux Mondes 119:156 (1893). 71

——. "Die Verbrecherwelt von Berlin." Berlin, Jacobsthal, 1886. 2m. 72

Prostitution. "Die Verbreitung der Syphilus in Berlin." Blaschko. Berlin, 1892. 8vo, 32 pp. 80 pf. 73

Public Comfort Stations. "Zur Frage Errichtung öffentlicher Bedürfnissanstalten für Frauen und Männer in Berlin." Deutsche Bauz. p. 261, 1875. 74

"Sanitary System of Berlin." Murphy, Geo. H. Cons. Rep. No. 129, 1891, pp. 265-72. 75

Berlin—*Continued.*

——. "Die Einwirkung hygienischer Werke auf die Gesundheit der Städte mit besonderer Rücksicht auf Berlin." Weyl, Th. Jena, G. Fischer, 1894. 2m. 76

——. "Oeffentliche Gesundheitspflege in Berlin." Albu, J. Berlin, J. Schröder. 1877. 6m. 77

——. (See also under Festschriften above).

Savings Banks. "Die städtische Sparkasse zu Berlin, in ihrer Einrichtung und Geschäftsführung dargestellt." Thiele, L. Berlin, Rosenthal, 1887. 3m. 78

School System. "Das gemeinde Schulwesen der Stadt Berlin." Bertram, Heinr. Berlin, Oehmigke, 1878. 79

Sewage Disposal in Berlin." Anon. Am. Arch. 20:126 (1886); Engng. News Oct. 7, 1885; Annales des Ponts et Chaussées, Sept. 1895; Gesund. Ing. 23:213 (July 15, 1900). 80

——. "Die Canalisation von Berlin. Im Auftrage d. Magistrats ausgeführt." Hobrecht, James. Atlas, 57 plates and tables. Berlin, Ernst u. Korn, 1887. 75m. 81

——. Sewage Farms of Berlin. Edwards, W. H. U. S. Cons. Rep. No. 130, pp. 462-7 (1891), same p. 164, Vol. XLVII., No. 173 (Feb. 1895); Fuertes, J. H. Engng. Rec. 40:30 (June 10, 1899); Hazen, Allen. Engng. News 38:178 (Sept. 16, 1897); Roechling, Herman. Proc. Inst. Civil Engineers 109:179-269 (1892); anon. Engng. Rec. p. 157, Aug. 6, 1892; Engng. News, Aug. 27, 1896; Gesund. Ing. June 15, 1898. 82

——. "Operation of the Berlin Sewerage System and Sewage Farms for the Year 1898-9." Hazen, Allen. Engng. N. 43:848 (May 24, 1900.) 83

——. (See also under Festschriften above).

Smoke Prevention. "Das revorstehende Verbot des Schornsteinrauchens in Berlin." Häntzschel, W. Gesund. Ing. June 30, 1899. 84

Statistical Offices. (See under Festschriften above).

Street Cleaning of Berlin. "Das städtische Strassenreinigungswesen Berlins." (Methods and cost of cleaning the streets of Berlin). Gesund. Ing. Feb. 28, 1897. 85

——. "Berlin Street Cleaning." Edwards, W. H. Cons. Rep. No. 128, 1891, pp. 116-119. 86

——. "Street Cleaning in Paris and Berlin." Grimshaw, Robert. Engng. M. 13:99 (Apr. 1897). 87

——. (See also under Festschriften above.)

Street Lighting. (See under Lighting above.)

Street Ordinances. "Strassenordnung für den Stadtkreis Berlin." Berlin, A. W. Hahn's Erben, 1900. 8vo, 36 pp. 30 pf. 88

——. "Le Nouveau Règlement de la Voie Publique à Berlin." Artibal, J. R. Municipale 3:2107 (May 12, 1900). 89

Transit Facilities. Combination Trolley and Conduit Electric Tramway. Martin, Henry. Le Genie Civil Nov. 5, 1898; anon. Engng. News 42:70 (Aug. 3, 1899); Zeitschr. f. Klein u. Strassenbahnen May 1, 16, 1900. 90

——. "Electric Tramways of Berlin and Vicinity." Krieger, H. Gartenlaube Hft. 7 (1900); anon. Ry. World 6:261 (Sept. 1897); Schweiz. Bau. Oct. 22, 29, 1898; St. Ry. J. 16:619 (July 7, 1900); Ty. & Ry. W. 9:217 (June 7, 1900). 91

——. History. "Berlin und seine Eisenbahnen, 1846-1896." Royal Prussian Minister of Public Works. Berlin, Julius Springer, 1896. 2 vols., 4to, pp. I, 375; II, 491. 92

——. "Berlin City Railway." Appendix, "Report to the Rapid Transit Commissioners of Massachusetts." Fitzgerald, John E. Boston, 1891. 93

——. "Elevated Railways in Berlin, Projects Submitted for." Deutsche Bauzeitung, Feb. 2, 1895, et seq.

——. "The Berlin Electric Elevated Road." St. Ry. J. 16:960 (Oct. 13, 1900).

——. Introduction of Electric Power upon the Berlin City and Belt Railway. "Einführung des Elektrischen Betriebes auf der Berliner Stadt and Ringbahn." Anon. Elek. Zeit. Nov. 16, 1899; St. Ry. J. 16:152 (Feb. 3, 1900); Elec. W. & E. 35:171 (Feb. 3, 1900); Glaser's Annalen Aug. 15, 1900.

——. "Metropolitan and Belt Railways of Berlin, The." Engng. News. 40:213 (Oct. 6, 1898).

——. "Rapid Transit in Berlin." p. 41 "Rapid Transit in Foreign Cities." Parsons, W. B. New York, 1894. 94

——. "Street Railway Policy in Berlin." James, Edmund J. Ann. Am. Acad. Pol. Sci. 15:437 (May, 1900). 95

Berlin—*Continued.*

——. "Tramways of Berlin." Glasers Annalen March 1, 1897.

——. "Tramway Projects in Berlin." Macgowan, D. B. Ty. & Ry. World 9:15 (Jan. 11, 1900). 96

——. Underground Railway. "Berliner Untergrundbahn." Zeitschr. f. Klein u. Strassenbahnen Dec. 1, 1899.

——. Underground Railways in London and Berlin. Silberstein, L. Die Zeit March 26, 1898.

Taxation (See under Finances above.)

Tenement Houses in Berlin. (See under Housing above.)

Theatres, Berlin. Poppenberg, Felix. Cosmopolis 11:282 (July 1898); von Zobelnitz, H. Velhagen und Klasings Monatshefte Jan. 1898. 97

"Water Works of Berlin." Edwards, W. H. Cons. Rep. No. 129, 1891, pp. 265-72; Fuertes, James H. Engng. Rec. 38:320 (Sept. 10, 1898). 98

——. "The Filters of the Berlin Water Works." Ch. XIV., p. 230. "Purification of Public Water Supplies." Hill, John W. New York, Van Nostrand, 1898. 304 pp. 8vo. $3.00. 99

——. "Filtration of Water, City of Berlin." Frankel, Carl. Zeitschrift für Hygiene 8:1 (1890). 100

——. "Sale of Water by Meter in Berlin." Gill, Henry. Proc. Inst. C. E. 107:203 (1892); 119:236 (1895). 1

——. (See also under Festschriften above.)

"Workhouse, Berlin Municipal." Edwards, W. H. Cons. Rep. No. 132, 1891, p. 153. 2

Berne, Switz.

Extension of Berne. "Die rationelle Vergrösserung der Stadt Bern." Eisenb. 15:139 (1899).

History. "Finanzwesen und Bevölkerung der Stadt Bern im 15 Jahrhundert." Schindler, K. Zeitschrift für Schweizerische Statistik, 1900. 3

Municipal Government of Berne. Demombvnes. Vol. II., pp. 367-384. See 2-11. 4

"Unemployed in Berne, Aid for." Germain, Eugene. U. S. Cons. Rep. No. 167, 1894, p. 607. 5

——. "Die Gesetzgebung d. Schweizerkantone Bern, St. Gallen u. Basel, bet. eine Versicherung gegen Arbeitslosigkeit." Garrelts, Fr. Goettingen, L. Horstmann, 1896. 2 S. m. 1 Tab. in Imp.-Fol. lm. 6

——. "Die Arbeitslosemersicherung in St. Gallen und Bern." Hofmann, E. Ar. Soz. Gesets. Stat. 13:85 (1 Heft, 1898). Schartlin, G. Schweiz, Bl. June, 1894. 6a

"**Berwyn, Pa.**, Water Company, The Slow Sand Filtration Plant of the." Ledoux, J. W. Engng. News 41:150 (March 9, 1899). 7

Bethnal Green. (See under **London**).

Betterment. (See Assessments, Special, under **Finance**).

"**Biarritz [France]**, The Abattoir of." Cumming, Alice L. Public Health July, 1900. 8

Bibliographies.

"Bibliography of Municipal Administration and City Conditions." (Published as Vol. I, No. 1 of Municipal Affairs) Brooks, Robert C. New York, Reform Club Committee on Municipal Administration, 1897. 224 pp. 50 cts. Quarterly supplements, Mun. Aff. 1:400 (June, 1897), 1:580 (Sept., 1897), 1:781 (Dec., 1897), 2:155 (March, 1898), 2:320 (June, 1898), 2:557 (Sept., 1898), 2:800 (Dec., 1898), 3:172 (March, 1899), 3:371 (June, 1899), 3:555 (Sept., 1899), 3:766 (Dec., 1899), 4:240 (March, 1900), 4:426 (June, 1900), 4:625 (Sept., 1900), 4:790 (Dec., 1900). Materials contained in supplements and bibliography of 1897 collected in present volume. 9

Housing of the Poor, Bibliography. pp. 127-132 in Marcus T. Reynolds' "Housing of the Poor in American Cities." New York, Publications Am. Econ. Assoc. Vol. VIII, Nos. 2 and 3, 1893. 132 pp. $1. 9a

"Municipal Government, Reference List of Works Relating to." Woodward, Frank E. Malden, 1897. 4 pp. 10

——. "Bibliography of Municipal Government and Reform." pp. 341-81, Pro. of

Bibliographies—*Continued.*

the First National Conf. for Good City Govt., 1894. See 6-18a.

——. "References on Municipal Government in the United States." Hodder, Frank H. Cornell University Library Bulletin, Vol. II., 1888. 11

——. "Bibliography of Municipal Government in the United States." Hodder, Frank M. Kansas University Quarterly 1:179-196 (1893).

——. pp. 95-103 "Mayor vs. Council." Univ. of Wisconsin. Madison, 1897. Paper, 50 cts.

"Municipal Reform, Bibliography of." Will, Thomas E. Arena 10:555 (1894). 12

Parks. (See Henry Sargent Codman on "The Art of Landscape Gardening" in Garden and F. 3:131 (1890) for referencces to the literature of Parks.) 13

——. "Bibliography of Parks and Play Grounds." Will, Thomas E. Arena 10:274 (1894). 14

"Political Corruption, Bibliography of." Will, Thomas E. Arena 10:845 (1894).

"Reader's Guide in Economic, Social and Political Science." Bowker, R. R. and George Iles. New York, Society for Political Education, 1891. 169 pp. 50 cts. (Bibliography of Workingmen's Dwellings p. 89. Municipal Government, p. 118.) 15

Settlements. "Bibliography of College, Social and University Settlements." Jones, M. Katharine. 1895. 54 pp. Paper, 10 cts. 16

United Kingdom, Bibliography on British Municipal History. (See under **United Kingdom.**)

Bilston, Eng.

"Baths of Bilston, Staffordshire, England, The Public." Fuertes, James H. Engng. Rec. 41:61 (Jan. 20, 1900). 17

"Water Works of Bilston, England." Fuertes, James H. Engng. Rec. 41:250 (March 17, 1900). 18

"**Binghamton, N. Y.**, Electric Railroad, The." Gardner, Harry N. Elec. Engng. 24:345 (Oct. 14, 1897). 19

"**Birmingham, Ala.**, The Street Railway of." St. Ry. J. 16:528 (June 2, 1900). 20

Birmingham, Eng.

City Government, General and Unclassified.

"The Best Governed City in the World." Ralph, Julian. Harper's M. 81:99 (1890). 21

"Birmingham. il comune modello." Bettocchi, C. Napoli, N. Jovene e C., 1893. 47 pp. 22

"Birmingham, its Civic Life and Expansion." Chap. VI, p. 168, "Municipal Government in Great Britain," by Albert Shaw. 23

"Birmingham Caucus." (Liberal Political Organization.) Marriott, W. T. 19th Cent. 11:949 (1882). 24

"Birmingham and Mr. Chamberlain." Porrit, Edward. Leslie's Wkly. 81:74 (1895). 25

"English Municipal Institutions Studied at Birmingham." MacDonald, J. A. 19th Cent. 20:234 (1886). 26

"Municipal Government of Birmingham, Manchester and Liverpool." Sharpless, Isaac. Haverford College Studies No. 11. 27

"Municipal Government, An Object Lesson in." Parker, Geo. F. Cent. 53:71 (1896). 28

"Municipal Institutions in America and England" (Comparison of Birmingham and Boston). Chamberlain, Joseph. Forum 14:267 (1892). See also Our Day 11:123 (1893). 29

"Municipal Progress in Birmingham." London 7:617 (Sept. 29, 1898). 30

Abattoirs. "New Municipal Slaughter-Houses at Birmingham." London 6:941 (Dec. 2, 1897). 31

"Architecture of Birmingham, England, The." Builder Nov. 27, 1897. 32

"Baths, Birmingham (Eng.)" Arch. & Cont. Rep. 58:166 (Sept. 10, 1897); City Rec. 1:597 (Oct. 20, 1898). 33

Finance. "Municipal Expenditures of Birmingham." Avery, T. J. Statis. Soc. 29:78 (1866). 34

——. "Municipal Finance as Illustrated by the City of Birmingham." Smith, E. O. J. Statis. Soc. 58:327 (1895). 35

Birmingham, Eng.—*Continued.*

"History of the Corporation of Birmingham, with a sketch of the earlier government of the town." Bunce, J. T. Birmingham, published for the corporation, 1878-85. 2 vols. Birmingham, Cornish. 8vo. 10 S. For other references on the history of Birmingham see p. 169 of Gross' "Bibliography of British Municipal History." 36

Lighting. "Centenary of Gas-Lighting in Birmingham, Eng." Arch. (London) Supp. p. 23 (Sept. 2, 1898). 37

Municipal Control, Ownership, etc. "Birmingham Municipality at Work." Dolman, F. New R. 17:74 (1894). See also Chap. I., p. 1, in his "Municipalities at Work." 38

Sanitation. "How Birmingham Keeps Healthy." Mun. J. 9:905 (Nov. 16, 1900). 39

"Sewage Farm at Saltley, Birmingham, Eng." San. Eng. Oct. 7, 1886. 40

——. "Sewage Works at Birmingham and Edmonton." Cole, T. Van Nostrand's Elec. Eng. Mag. 27:42 (1882). 41

——. "Death Rate, Birmingham's Abnormal: Is the Sewage System to Blame?" San. Rec. 20:280 (Sept. 10, 1897). 42

Transit Facilities. Tramways. Ry. World 7:162 (May 5, 1898); Mun. J. & London 8:205 (Feb. 16, 1899); Ann. Am. Acad. Pol. Sci. 14:143 (July, 1899). 43

——. "The Electric Railway in Birmingham." Halstead, Marshal. Elec. R. 37:224 (Sept. 5, 1900), Cons. Rep. 64:311 (Nov., 1900). 44

——. "Birmingham, Report of the Sub-Committee on Tramway Traction." (Brief reports on systems in use in Bristol, Blackpool, Paris, Rouen, Brussels, Vienna, Buda-Pesth, Dresden, Berlin, Hamburg and Bremen.) Birmingham, April, 1897. 50 pp. 45

——. "Birmingham, Report of the Public Works Committee on Tramways, presented to Council June 29, 1897." Birmingham, 1897. 66 pp. Commented on in St. Ry. Rev. 7:451 (July 15, 1897). 46

"Water Supply of Birmingham." Sat. R. 72:349 (1891), R. Technique, May 25, 1898; Eng. (London) 86:243 (Sept. 9, 1898); London 7:601 (Sept. 22, 1898). 47

——. "The Future Water Supply of Birmingham." Barclay, Thomas. Birmingham, Stanford, 1898. 3d ed. 8vo. 170 pp. 4s. 48

——. "History of Birmingham's Water Supply." Barclay, Thomas. London 7:603 (Sept. 22, 1898). 49

"Waterworks, City of Birmingham Corporation." Crespi, Alfred J. H. New Cent. R. 8:358 (Nov., 1900). Davey, Henry. Mechanical World 22:100 (Aug. 27, 1897), J. Gas Lgt. 70:682 (Sept. 28, 1897); anon. Arch. June 11, 1897; Mun. J. & London 8:1386 (Dec. 29, 1900). 50

——. "The Construction of the Elan Aqueduct, Birmingham." Lapworth, Herbert. Engng. Rec. 42:292 (Sept. 29, 1900). 51

Births, Deaths and Marriages. (See under **Statistics.**)

"**Blackpool [Eng.]**, The Trolley Problem at." Elec'n, (London) 43:474 (July 28, 1899). 52

Boards, Municipal.

"Boards, Single-Headed Commissions or Council Committees." Evans, F. V. City Govt. 5:71 (Aug. 1898), Prog. Age 16:495 (Sept. 1, 1898); Young, W. E. Prog. Age 16:404 (Sept. 1, 1898). 53

——. (See also **Councils.**)

Bochum, Germany.

Housing. "Die Arbeiterwohnungen des Bochumer Vereins für Bergbau und Gussstahlfabrikation." Bochum, 1876.

——. "Wohnungsverhaltnisse der ärmeren Volksklassen in Bochum." Lange. pp. 73-105 Hft. 31, Schr. d. Ver. f. Socialpolitik. 54

Bolbec, France.

Housing. "Cités Ouvrières de Bolbec." Nouv. Annales de la Const., p. 162, 1878. 55

Bolton, Eng.

"Electric Lighting at Bolton, Eng." Lomas, Harold, and Gunton, Herbert C. Elec. W. & E. 30:5 (July 3, 1897); Elec. R. (London) 46:101 (Jan. 19, 1900). 56

"Sewage Filtration Works at Bolton." San. Rec. 24:306 (Oct. 6, 1899). 57

"Tramways in Bolton, Municipal." Mun. J. & London 8:1335 (Dec. 15, 1899). 58

Bombay, India.

"Electric Works in Bombay." Fee, William T. Cons. Rep. 64:91 (Sept., 1900). 59
"Tramways in Bombay." Fee, William T. Cons. Rep. 61:561 (Dec., 1899); anon. St. Ry. R. 9:600 (Sept. 15, 1899). 60
"Water Supply of Bombay." San Rec. 26:299 (Oct. 5, 1900). 61

Bonds, Municipal. (See under **Finance.**)

Bordeaux, France.

Municipal Exchanges for Apprentices at Bordeaux. "Bourses Municipales d'Apprentissage pour les Garçons à Bordeaux." Peytoureau. R. Municipale 3:1760 (Dec. 9, 1899). 62
Sanitation. "Hygiène urbaine, l'assainissement de Bordeaux." Mauriac, Jean E. Bordeaux, Feret et Fils, 1890. 2 pp. 63
"Sewage Disposal, Bordeaux." Wiley, J. M. U. S. Cons. Rep. Vol. XLVII, No. 173, p. 164 (Feb., 1895). 64

"**Borsbeke, Belgium,** Co-operative Electric Lighting in the Village of." Schoentjes, H. Elec. Eng. April 28, 1897. 65

Bossism in City Politics. (See also under **Elections,** Tammany under **New York.**)

"American Boss, The." Lowell, Francis C. Atlan. 86:289 (Sept., 1900). 66
"Are the Bosses Stronger than the People?" Bishop, J. B. Cent. 54:465 (July, 1897). 67
"The Boss." Moffett, S. E. Chapter XV, p. 184 "Suggestions on Government." Chicago, Rand, McNally & Co., 1894. 200 pp. $1.00. 68
"The Boss,—An Essay Upon the Art of Governing American Cities." Champernowne, Henry. New York, Geo. H. Richmond & Co., 1894. 243 pp. $1.25. 69
"Boss Rule in Old English Municipalities." Porrit, Edward. No. Am. 164:125 (1897). 70
"Civil Service Reform in the United States and Bossism." Harris, J. A. Penn. Mo. 12:524 (1881). (See also under **Civil Service in Cities.**) 71
"Essence of Boss Government, The." (Editorial.) Nation 68:308 (April 27, 1899). 72
"Growing Impudence of the Bosses." Cent. 52:154 (1896). 73
"Price of Peace, The." (Bossism.) Bishop, J. B. Cent. n. s. 26:667 (Sept., 1894). 74
"Rule of the Boss." Godkin, E. L. Nation 13:236, 286 (1871) 75
"Why the Ward Boss Rules." Addams, Jane. Outlook 58:879 (April 2, 1898). 77

Boston, Mass.

Government, general references and unclassified. "Boston." Chap. VI. in "The Land of the Dollar" by G. W. Steevens. New York, Dodd, Mead & Co., 1897. 12mo, 316 pp. $1.50. 78
"Boston at the Century's End." Baxter, Sylvester. Harper's M. 99:823 (Nov., 1899). 79
Description and statistics of Boston, Mass., in 1880. Census. See 1-7.
"Government of Boston." Sprague, Henry H. Lend a H. Extra No. Vol. IV., March, 1889. 80
——. "City Government of Boston." Bugbee, J. M. J. H. U. Studies V:3 (1887). 25 cts. 81
——. "City Government of Boston." Matthews, Nathan, Jr. (Valedictory Address to Members of the City Council, Jan. 5, 1895.) Boston, Rockwell & Churchill, 1895. 8vo, 289 pp. 82
——. "Government of Boston." Storey, Moorfield. p. 61, Proc. First Natl. Conf., 1894. See 6-18a. 83
——. "Government of Boston; its Rise and Development." Sprague, Henry H. Boston, W. B. Clark & Co., 1890. 53 pp. 50 cts. 84
——. "The Organization of the City Government of Boston." Quincy, Josiah. Prog. Age 15:457 (Oct. 15, 1897), City Govt. 3:199 (Dec. 1897). 85
——. "Proposed Charter for the City of Boston." Bradford, G. No. Am. 123:1 (1876). 86
"Greater Boston." Atkinson, E. New Eng. M. 13:377 (1895). 87
——. "Greater Boston, a Study for a Federalized Metropolis." Baxter, Sylvester. Boston Herald, 1891. Leslie's Wkly. 80:348 (1895). 88

Boston, Mass.—*Continued.*

"Municipal Boston." Mun. J. & London 8:782 (July 7, 1899).

"Municipal Institutions in America and England." (Comparison of Birmingham and Boston.) Chamberlain, Joseph. Forum 14:267 (1892), Our Day 11:123 (1893). 89

"Municipal Progress in Boston." Quincy, Josiah. Ind. 62:424 (Feb. 15, 1900). 90

"Municipal Service of Boston, The." Lowell, Francis C. Atlan. 81:311 (March, 1898). 91

"Possible Boston, The." Hale, E. E. Lend a H. 4:263 (1899). 92

Record, City. (Beginning with Jan. 1, 1898, the City of Boston published weekly until 1900 an official gazette containing the more important city records. This paper was called "The City Record.") 93

Andover House, now South End House. (See below, under Settlements.)

"Architecture in Boston, Municipal." Engng. Rec. 39:133 (Jan. 14, 1899.) 94

——. "Recent Boston Architecture." Cobb, Albert Winslow. Arch. & Buil. 26:235, 27:3, 47 (May 15, July 3, Aug. 7, 1897). 95

"Baths in Boston, Free Municipal." Cole, William J. City Govt. 7:43 (Aug., 1899), Mun. Rec. & Ad. 3:838 (Oct. 15, 1898); Engng. News 41:174 (March 16, 1899.) 96

——. "Baths Statistics for the Period 1866-1898, Public." City Rec. 1:730 (Dec. 29, 1898.) 97

——. "Dover Street Bath House." City Rec. 1:594 (Oct. 20, 1898.) 98

——. "Public Playgrounds and Baths in Boston." Engng. Rec. 38:331 (Sept. 17, 1898.) 99

"Board of Estimate and Apportionment." Ann. Am. Acad. Pol. Sci. 11:423 (May, 1898.) 100

"Building Department of Boston, Mass., The." Engng. Rec. 40:119 (July 8, 1899.) 1

——. "Abstract and Discussion of Building Laws of Boston and New York." Am. Arch. Nov. 21, 1892, p. 97. Engng. Rec. Aug. 6, 1892, p. 159. 2

——. "Height of Buildings at Copley Square." City Rec. 2:713 (Nov. 2, 1899); Mun. Aff. 3:720 (Dec., 1899.) 3

——. "Limitation of Heights of Buildings." An. Am. Acad. Pol. Sci. 14:139 (July, 1899.) 4

"Burial Places of Boston and Vicinity, Historical." Merriam, John M. Proc. Am. Antiquarian Society n. s. 7:381-417 (Oct., 1891.) 5

"Business Men in Civic Service." Brooks, R. C. Mun. Aff. 1:491 (1897.) 6

——. "Municipal Representation of Business Organizations." Boston, Pamphlet reprinted by Rockwell and Churchill, from N. Y. Evening Post of Jan. 8, 1897. 10 pp. 7

Charities of Boston. Cole, William I. New Eng. M. 18:233 (April, 1898); Wines, Frederick H. Char. R. 6:41 (March, 1897.) 8

——. "Directory of the Charitable and Beneficent Organizations of Boston." Boston, Damrell & Upham, 1899. 12mo, 475 pp. Cloth, $1. 9

——. "The Public Charitable Institutions of Boston." Cole, Wm. I. A series in the New England Magazine, 1897-99. 10

——. "Relief of Poor in Boston." Lend a H. 5:696 (1890), 12:368 (1894.) 11

——. "A Study of Beggars and Their Lodgings." Sanborn, Alvan F. South End House Bulletin, No. VII, 1895. 12

——. (See also under Schools, Settlements, Women's Work below.)

"Concerts, Municipal." Baxter, Sylvester. Ann. Am. Acad. Pol. Sci. 13:125 (Jan., 1899.) 13

Conduits. "History of the Solution of the Wire Problem in Boston." Brophy, William. City Govt. 5:26 (July, 1898); anon. Mchts. Assoc. Rev. Vol. III. No. 31, p. 3 (March, 1899): Elec. W. & E. 31:224 (Aug. 12, 1899.) 14

——. "Municipal Wiring a Failure in Boston." Adams, Alton D. Elec. W. & E. 35:365 (March 10, 1900); Prog. Age 18:171 (April 16, 1900.) 15

"Department Store in the East, The. Confusion from Cheapness in Boston." Wright, John Livingston. Arena 22:165 (Aug. 1899). 16

Direct Employment. (See under Labor below.)

"Drainage of Greater Boston, The." Twelvetrees, W. N. Surveyor 17:644 (June 15, 1900.) 17

"East Boston Tunnel." City Rec. 3:205 (April 5, 1900.) 18

Boston, Mass.—*Continued.*

Elevated Railway. (See under Transit Facilities below.)

"Finances of Boston, City." City Rec. 3:158, 173 (March 15, 22, 1900). (See also No. 89 above.) 19

"Fire Department and What It Consists of, The Boston." Grady, John. Fire & W. 24:323 (Sept. 24, 1898.) 20

Foreign Element. "Italian Immigrants in Boston." Bushée, Frederick A. South End House Bulletin No. X, 1897, Arena 17:722 (April, 1897.) 21

Garbage Disposal. "Utilization of City Refuse in Boston, Mass." Engng. Rec. 39:277 (Feb. 25, 1899.) 22

"Harbor Defects, Boston's." Seaboard (New York) June 3, 1897.

"Higher Life of Boston." Hale, E. E. Outlook 53:554 (1896.) 23

"History of Boston, Mass." Higginson, Thomas Wentworth and Hale, Edward Everett. See 1-4a; anon. Census. See 1-7. 24

——. "History of Boston, 1630-1880, Memorial." Winsor, Justin. Boston, Osgood, 1881. 4 Vols. $25. (The fourth volume covers the history of Boston during the nineteenth century.) 25

——. "Historic Towns—Boston." Lodge, Henry Cabot. London and New York, Longmans, G. & Co. (Historic Town Series) 1892. 242 pp. $1.25. 26

——. "The Story of Boston." Whiting, Lillian. St. Ry. Rev. 8:513 (Aug., 1898); anon. St. Ry. Rev. 8:500 (Aug., 1898.) 27

——. (See also Burial Places above.)

Housing. "The Anatomy of a Tenement Street." Sanborn, Alvan F. South End House Bulletin No. VI (1895), Forum 18:554 (1895.) 28

——. "Civilization's Inferno, Studies in the Social Cellar." Flower, B. O. Boston, Arena Co., 1893. 237 pp. $1. 29

——. "Moody's Lodging House, and Other Tenement Sketches." Sanborn, Alvan F. Boston, Copeland & Day, 1896. 30

——. "Model Lodging Houses in Boston." Norton, C. E. Atlan. 5:673 (1860.) 31

——. "Some Slums in Boston." Estabrook, Harold Kelsey. Boston, Twentieth Century Club, 1898. 23 pp. Pamphlet. See also Char. R. 8:242 (July, 1898.) 32

——. "Tenement House Census of Boston." Wadlin, H. G. Report of the Mass. Bureau of Labor Statistics, 1891 and 1892. Comment on the above, Tunis, J. Lend a H. 12:56 (1894.) 33

——. "Tenement House Districts of Boston, Report on a Sanitary Inspection of." Porter, Dwight. Boston, Rockwell & Churchill, prs., 1889. 76 pp. 34

——. "Tenement House Life in Boston." Swaffield, Walter J. Arena 9:668 (1894); anon. Mass. Labor Bulletin No. 11, p. 75 (July, 1899.) 35

——. "A Study of Boston's Tenement Houses." Flower, B. O. Arena 4:37 (1891.) 36

"If Jesus Came to Boston." Hale, E. E. New Eng. M. 11:402 (1894.) 37

Italian Immigrants in Boston. (See Foreign Element above.)

Labor and the Municipality. "Public Work. A Boston Argument in Favor of Direct Municipal Employment." Baxter, Sylvester. R. of Rs. 15:435 (April, 1897.) 38

Lectures. "Free Municipal Lectures in 1899." City Rec. 2:417 (June 1, 1899.) 39

"Legislative Interference." Baxter, Sylvester. Ann. Am. Acad. Pol. Sci. 14:142 (July, 1899.) 40

Library, Boston Public. Baxter, Sylvester. Hrprs. Wkly. 38:903 (1894); Sullivan, T. R. Scrib. M. 19:83 (1896); Swift, Lindsay. City Govt. 1:6 (1896); Wilson, Philip W. Temple Magazine Aug, 1899; anon. Hrps. Wkly. 39:251 (1895.) 41

Lighting. "Gas Supply of Boston, The." Gray, John H. Q. J. Econ. 12:419 (July, 1898), 13:15 (Oct., 1898), 13:292 (April, 1899), 14:87 (Nov., 1899); anon. J. Gas Light 76:82, 149, 213, 274 (July 10-31, 1894.) 42

——. "Boston's Big Gas Project." Am. Mfr. & Ir. Wld. 61:625 (Oct. 29, 1897.) 43

——. "Boston's Gas Atmosphere Cleared." (Editorial.) Prog. Age 15:595 (Dec. 15, 1897.) 44

——. "Gas Street Lighting in Boston." City Govt. 7:19 (July, 1899.) 45

——. "Public Lighting Contract." Quincy, Josiah. City Rec. 1:505 (Sept. 1, 1898); anon. Engng. Rec. 38:375 (Oct. 1, 1898.) 46

——. "A Municipal Failure in Boston." City Govt. 8:119 (May, 1900.) 47

Lodging Houses. (See under Housing above.)

Boston, Mass.—*Continued.*

"Markets of Boston." Lincoln, (Mrs.) Mary J. Chaut. Dec. 1896. 48
Mayoralty. "Administration of Mayor Quincy. A Progressive Administration." City Govt. 2:101 (April, 1897.) 49
——. "Mayor Quincy of Boston." Hooker, George E. Am. Mo. R. of Rs. 19:575 (May, 1899.) 50
"Municipal League of Boston." Capen, Samuel B. Address, Boston Transcript, Feb. 23, 1894. Same subject, Am. J. Pol. 5:1 (1894.) 51
Municipal Control, Ownership, Etc. "An Insolvent Utopia." Copeland, Guild A. Hrprs. Wkly. 44:549 (June 16, 1900.) 52
——. "City Ownership in Boston." Quincy, Josiah. Cal. Mun. 1:136 (Dec., 1899.) 53
——. "Municipal Socialism in Boston." Douglas, Francis T. Arena 20:545 (Nov.-Dec., 1898.) 54
——. (See also under Printing Plant below.)
"Organ Recitals in Boston, Free Public." Cole, Wm. I. Am. M. R. of Rs. 16:579 (Nov., 1897.) 55
Parks, Parkways, Etc. "Architectural Features of the Boston Parks." Baxter, Sylvester. Am. Arch. July 16, 1898. 56
——. "Metropolitan Park Commission." Ann. Am. Acad. Pol. Sci. 14:138 (July, 1899).
——. "Metropolitan Park Movement." Baxter, Sylvester. Garden & F. 5:62, 421 (1892.) 57
——. "Neighborhood Pleasure Grounds in Boston." Olmsted, F. L., Jr. Hrprs. Wkly. 41:1290 (Dec. 25, 1897.) 58
——. "Park System of Boston." Baxter Sylvester. Garden & F. 7:23 (1894), Cent. 54:952 (Oct., 1897); Eliot, Chas. New Eng. M. Sept., 1896; Pierce, William T. Park and Outdoor Art Assoc. p. 63, 1897; Pullen, Clarence. Hrprs. Wkly. 34:44 (1890); anon. Garden & F. 6:61 (1893), 8:171 (1895), 10:241 (1897); Engng. Rec. 40:618 (Dec. 2, 1899.) 59
——. "Playgrounds in Boston." City Rec. 1:357 (June 9, 1898.) 60
——. "Report of the Board of Metropolitan Park Commissioners." Charles Francis Adams, Philip A. Chase and William B. de las Casas. House Doc. No. 150, Jan., 1893. 147 pp. 61
——. "Topographical Surveys of Metropolitan Park Reservations of Massachusetts." Bryant, Henry F. J. Assoc. Engng. Soc. 18:252 (April, 1897.) 62
——. "Vegetation and Scenery in the Metropolitan Reservations of Boston." Eliot, Charles. Boston, Lamson, Wolffe & Co., 1898. 8vo, 80 pp. 63
"Pavements in Boston." Engng. News, May 12, 1892. 64
"Penal Institutions, Boston's." Cole, William I. New Eng. M. 17:613 (Jan. 1898.) 65
Play Grounds. (See under Parks above.)
"Population of Boston, Growth of the." Bushée, Frederick A. Am. Statis. Assoc. 6:239 (June, 1899.) (See also under Vital Statistics below.) 66
"Printing Plant, Boston's Municipal." Whalen, Thomas A. City Govt. 8:88 (April, 1900.) 67
——. "Municipal Printing in Boston." Chase, Harvey S. Mun. Aff. 4:774 (Dec., 1900.) 68
"Public Convenience Station, Boston Common." City Rec. 2:720 (Nov. 2, 1899.)
"Public Works, Municipal Government of Boston, with Especial Reference to." Jackson, Wm. J. Assoc. Engng. Soc. March, 1892, p. 123. 69
——. "Boston, Public Work in 1899." Mun. Engng. 19:381 (Dec., 1900.) 70
Quincy, Mayor. (See under Mayoralty above.)
Rapid Transit. (See under Transit Facilities below.)
"Real Estate Values in Boston." Whitmore, Henry. Am. Statis. Assoc. 5:1 (1896.) 71
Sanitation. "Health of Boston and Philadelphia." Billings, John S. Forum 17:595 (1894.) 72
"Schools in Boston, Public." Rice, J. M. Forum 14:753 (1893.) 73
——. "The Boston Schools: A Sanitary Investigation." Pearmain, Alice Upton. Mun. Aff. 2:497 (Sept., 1898); Domestic Engineering, June, 1896. 74
——. "A Study of Boston Evening Schools." Clark, William A. South End House Bulletin No. VIII, 1896. 75
——. "Table Showing the Distribution of Pupils in the Public Schools in Respect

Boston, Mass.—*Continued.*

both to Age and to Grades, Jan. 3, 1899." City Rec. 2:297 (April 20, 1899.) 76

Settlements—College, Social and University. "Andover House Association." Woods, Robert A. Andover R. Jan., 1892. 77

——. "Ben Adhem House, Work of." Manning, Helen L. Journal of Practical Metaphysics, Boston, Nov., 1896. 78

——. "City Wilderness: A Settlement Study by Residents and Associates of the South End House, Boston." Woods, R. A., Editor. Boston, Houghton, Mifflin & Co., 1898. 12mo, 311 pp. Maps and plans. 79

——. Denison House. (See no. 80 below.)

——. South End House, Formerly Called Andover House, Articles on. Cole, W. I. New Eng. M. July, 1896; Tucker, Wm. J. Scrib. M. 13:357 (March, 1893); Woods, Robert A. Lend a H. 11:183 (1893), Char. R. 2:160 (1893); anon. Lend a H. 16:142 (Feb., 1896.) 79a

——. "Women's Work in Boston Settlements." (Denison House.) Dudley, Helena S. Mun. Aff. 2:493 (Sept., 1898.) 80

"Sewerage System, The Boston Main Drainage." Clarke, Eliot C. Engng. News, May 8, 1880, p. 159. 81

——. "The End of the Boston Sewer Assessment System." Engng. News 40:229 (Oct. 13, 1898); Engng. Rec. 39:585 (May 27, 1899.) 82

——. "Handling Boston's Sewage." Young, Henry G. Boston J. of Commerce, March 27, 1897. 83

——. "The Moon Island Sewage Reservoir, Boston." Engng. Rec. 40:530 (Nov. 4, 1899.) 84

——. Metropolitan Sewage Board. (See Sewage under **Massachusetts.**)

——. "New Law Regarding Sewage Works in Boston." City Rec. 1:547 (Sept. 29, 1898.) 85

—— "The New Massachusetts Metropolitan Sewerage Project." (Editorial.) Engng. Rec. 39:345 (March 13, 1899.) 86

——. "Studies for a High Level Gravity Sewer for Boston and Vicinity." Engng. News 41:166 (March 16, 1899.) 87

Slums. (See under Housing above.)

——. "Vital Statistics of Boston and Philadelphia, covering a period of six years, ending May 31, 1890." Billings, John S. Washington, Government Printing Office, 1895. 269 pp. Eleventh Census of the United States. 88

Statistics. "Boston's Department of Municipal Statistics." Minot, Lawrence. Pro. Indianapolis Conf. p. 254, 1898. See 6-18e. 89

"Street Cleaning in Boston, Cost and Methods of." J. Assoc. Engng. Soc., Aug., 1892, p. 433. 90

"Street Department, Report of the." City Rec. 1:673 (Dec. 1, 1898.) 91

Street Railways. (See under Transit Facilities below.)

"Street Work in Boston." Wood, Henry B. and others. J. Assoc. Engng. Soc. 11:427 (1892.) 92

Subway, Boston. (See under Transit Facilities below.)

"Sweating in Boston." p. 97 et seq. "Report of the Committee of Manufacturers on Sweating." H. R. Report No. 2309, 1893. John DeWitt Warner, chairman. 93

——. "Tenement House Workers in Boston." Hicks, W. L. Am. J. Soc. Sci. 30:103 (1894.) 94

Tenement Houses in Boston. (See under Sweating, Housing above.)

Transit Facilities. "The Erection of the Boston Elevated Railway." Fowler, Charles Evan. Engng. News 43:179 (March 15, 1900.) 95

——. "Cost of Boston Elevated Street Railways, Estimated." Railroad Gaz. 29:537 (July 30, 1897.) 96

——. "The Boston Elevated Railroad." (Important features of the new franchise.) Railroad Gaz. 29:472 (July 2, 1897), 29:517 (July 23, 1897.) 97

——. "The Elevated Structure of the Boston Elevated Railway." Engng. Rec. 41:245 (March 17, 1900.) 98

——. "Proposed Route of the Boston Elevated Railway." Engng. News 39:263 (April 21, 1898.) 99

——. "The System of the Boston Elevated Railway Company." Fairchild, C. B. St. Ry. R. 10:121 (March 15, 1900), 10:185 (April 15, 1900), 10:246 (May 15, 1900.) 100

——. "The Boston Elevated Railroad." Railroad Gaz. 30:291 (April 22, 1898);

Boston, Mass.—*Continued.*

St. Ry. Rev. 8:525 (Aug., 1898); St. Ry. Jour. 14:501 (Sept., 1898); Engng. News 41:303 (May 11, 1899.) 1

——. "Rapid Transit, Boston." Manley, Henry. J. Assoc. Engng. Soc. 8:280 (1889.) 2

——. "Report of the Rapid Transit Commission to the Massachusetts Legislature, April 5, 1892." Rice, Geo. S., Chief Engineer. 3

——. "Street Railway Consolidation." Baxter, Sylvester. Ann. Am. Acad. Pol. Sci. 11:119 (Jan., 1898.) 4

——. "Street Railway Lines." Rowe, Leo S. Ann. Am. Acad. Pol. Sci. 11:142 (March, 1898.) 5

——. Street Railway System, Conditions and Financial Results in Metropolitan Boston. St. Ry. Jour. April, 1895, 14:263, 471 (May-Sept., 1898.) 6

——. Subway, Boston. Beal, B. L. Mun. Aff. 4:219 (March, 1900); Kleinschmidt, F. City Govt. 1:72 (1896); Stewart, Jane A. Chaut. 28:568 (March, 1899); Talbot, J. E. Elec. World 30:295 (Sept. 11, 1897); Varney, Geo. J. Nat. M. 12:272 (July, 1900); Wright, John Livingston. Self-Cult. 9:439 (June, 1899); Public Improvements 1:120 (Aug. 1, 1899); anon. Engng. Rec. Jan. 23, 1897, 39:210 (Feb. 4, 1899); Engng. News 37:76 (Feb. 4, 1897); 39:74 (Feb. 3, 1898); Elec. R. 31:274 (Dec. 8, 1897); St. Ry. Rev. 85:544 (Aug., 1898); St. Ry. Jour. 14:493 (Sept., 1898); Ann. Am. Acad. Pol. Sci. 12:445 (Nov., 1898); Elec. World 33:165 (Feb. 11, 1899); City Rec. 2:293 (April 20, 1899.) 7

——. "The Completion of the Boston Subway and New Arrangements of Street Cars." Railroad Gaz. 30:759 (Oct. 21, 1898.) 8

——. "Erfolge und Erfahrungen mit der Bostoner Unterflasterbahn." v. Emperger, Fritz. Zeitschr. Oesterr. Ing. u. Arch. Ver. Oct. 5, 1900. 9

——. "Lease of the Boston Subway." Railroad Gaz. March 5, 1897. 10

——. "Opening of the Boston Subway." Hrprs. Wkly. 41:934 (Sept. 18, 1897.) 11

——. "Roof Shield in the Boston Subway, The." (Technical Description.) Railroad Gaz. Feb. 12, 1897. 12

"Unemployed, Boston's." Estes, Edith Perry. Hrprs. Wkly. 38:197 (1894.) 13

——. "The Unemployed in Boston." South End House Bulletin No. II. By residents and associates of the House, 1894. 14

Vital Statistics. (See under Statistics above.)

Water Supply. "The Chestnut Hill Pumping Station of the Metropolitan Water Works." Flinn, Alfred D. Engng. Rec. 42:345 (Oct. 13, 1900), 42:367 (Oct. 20, 1900), 42:390 (Oct. 27, 1900.) 15

——. "The Clinton, Mass. Dam." Fire and W. Dec. 12, 1896. 16

——. "Ice Water Fountains, Boston's." Fahey, J. H. Public Imp. 2:242 (April 2, 1900.) 17

——. "Nashua Aqueduct." Engng. News 37:114 (Feb. 25, 1897.) 18

——. Reservoirs. "Greater Boston's New Reservoir." Bemis, Charles H. Hrprs. Wkly. Jan. 16, 1897; Reservoir No. 5, Engng. News 37:130 (March 4, 1897); Wachusett Reservoir, Engng. Rec. 41:50 (Jan. 20, 1900). 19

——. "Salt Water Pipe System of Boston." City Govt. 6:45 (March, 1899.) 20

——. "The Wachusett Dam for the Metropolitan Water Supply, Boston, Mass." Flinn, Alfred D. Engng. News 44:174 (Sept. 13, 1900); anon. Engng. Rec. 42:218, 242 (Sept. 8, 15, 1900.) 21

——. Metropolitan Water Supply. Noyes, Albert F. Jour. New Eng. Water Works Assoc. 10:117 (1895); Osgood, Fletcher. New Eng. M. June, 1896; anon. Engng. Rec. March 2, 1895, Engng. News March 7, 1895, Fire and W. Dec. 25, 1897. 22

——. "Report of the Massachusetts State Board of Health upon a Metropolitan Water Supply." Numerous maps and plans. 232 pp. Feb., 1895. 23

——. Water Works, Metropolitan. Stewart, A. J. Sci. Am. Nov. 4, 1899; anon. J. Assoc. Eng. Soc. 18:207 (April, 1897); Engng. Rec. 37:314 (March 12, 1898), 39:585 (May 27, 1899.) 24

——. (See under Water Supplies, **Massachusetts.**)

Women's Work. "Some Ways of Benefiting a City." Lincoln, Alice N. Mun. Aff. 2:483 (Sept., 1898.) 25

Bradford, Eng.

"Advance, Bradford!" Mun. J. & London 9:1 (Jan. 5, 1900). 26

"Garbage Cremation at Bradford, England." McTaggart, John. Engng. Rec. 42:297 (Sept. 29, 1900). 27

——. Spl. Cons. Rep. 17:13-221, 1899. (See **Consular Reports.**)

——. "The Disposal of House Refuse in Bradford." McTaggart, John. Elec. R. (Lond.) Sept. 14, 1900, Surveyor 18:312 (Sept. 14, 1900), San. Rec. 26:247 (Sept. 21, 1900), Engng. (Lond.) 70:383 (Sept. 21, 1900); pp. 23-30 in Pro. of the Assn. of Cleansing Superintendents of Great Britain, Sept. 6-9, 1899. Rochdale, James Clegg, 1900. 8vo. 63 pp. 28

"Housing Scheme, Bradford." Mun. J. & London 8:1201 (Nov. 3, 1899). 29

Lighting. "Bradford Corporation Electricity Supply," Porter, Robert. Jour. of Gas. Lgt. (Nov. 30, 1897). 30

Sewage Disposal, Bradford. Meeker, Claude. Cons. Rep. 47:173 (1895); another report in Cons. Rep. 17:13-221 (1899); Richardson, F. W. Engng. Rec. 42:544 (Dec. 8, 1900); anon. San. Rec. 26:289 (Oct. 5, 1900); Surveyor 18:467 (Oct. 19, 1900), 31

Transit Facilities. "Electric Tramways, Bradford Corporation." Elec. Eng. (London) Aug. 26, 1898; St. Ry. J. 14:532 (Sept. 1898); Ry. World 7:317 (Oct. 13, 1898). 32

"Water Works, The Bradford." Watson, James. Engng. (Lond.) 70:349 (Sept. 14, 1900). 33

Brandeis, Austria.

Housing. "Kolonistenhäuser des Kohlenwerks Brandeisl in Böhmen." Allg. Bauz. p. 86 (1856). 34

——. "Colonie Ouvrière des Mines de Houille de Brandeisl." Nouv. Annales de la Const. p. 25 (1870). 35

"**Brandon, Vermont.**" Kellogg, Augusta W. New Eng. M. 17:293 (1897). 36

Bremen, Germany.

Harbor Works. "Die Neuen Hafenanlagen in Bremen und Bremerhaven." Oesterr. Monatschr. f. d. Oeffent. Baudienst Nov. 1897. 37

History. "Geschichte d. Stadt Bremen." Bippen, Wilh. Bremen, C. E. Mueller, 1892. Bd. I, 293 pp. 1 m. 80 pf. 38

"Sewage Disposal, Bremen." Keenan, George. Cons. Rep. 47:77 (1895). 39

Brescia, Italy, The Municipal Palace at. "Vom Palazzo Municipale zu Brescia." Eicholz, P. Zeit. für Bildende Kunst 11:234 (July, 1900). 40

Breslau, Germany.

"Construction of Streets and Buildings in Breslau." Erdman, C. W. Cons. Rep. 61:390 (Nov. 1899). 41

"Electric Railways in Breslau." Erdman, C. W. Cons. Rep. 60:254 (June, 1899). 42

Garbage. Spl. Cons. Rep. 17:13-221. (See **Consular Reports.**)

Bridges.

See also Budapest, New York.

"Art in Modern Bridges." Schuyler, Montgomery. Cent. 40:12 (May, 1900). 43

"Artistic Side of Bridge Design, The." Engng. News 42:401 (Dec. 21, 1899). 44

"Bridges and Art." Warner, John De Witt. Public Improvements 2:97 (Jan. 1, 1900). 45

"Esthetic Design in European Bridges." Grimshaw, Robert. Engng News 37:371 (June 17, 1897). 46

Brighton, Eng.

"Brighton, Progress of." Mun. J. & London 3:611 (May 19, 1899). 47

"Baths at Brighton, Cottage." Mun. J. & London 8:805 (July 14, 1899). 48

"Brighton Municipal Tramways." Mun. J. 8:712 (June 16, 1899); 9:687 (Sept. 7, 1900). 49

"**Brisbane, [Aus.]**, Tramway System of." Brown, S. Herbert. St. Ry. Jour. 14:528 (Sept. 1898). 50

Bristol, Eng.

"Bristol, The City of. A Glimpse of the Old and New Municipality." Mun. J. 9:121 (Feb. 16, 1900). 51

"Charities of Bristol, The." Sturge, Elizabeth. Char. Or. R. 3:233 (May, 1898). 52

——. "Condition of the Bristol Poor, Report of the Commissioners to Inquire into the." London, P. S. King & Son, 1884. 53

——. "La Misère en Angleterre—Condition du pauvre à Bristol." Raffalovich, A. Paris, Guillaumin et Cie, 1885. 1 fr. 54

History. "Bristol." Hunt, William. London, Longmans, 1887. Historic Towns Series. 8vo. 3s. 6d. (For other references on the history of Bristol see p. 176 of Gross' "Bibliography of British Municipal History.") 55

Transit Facilities. "Tramways, Bristol." Ry. World 7:89 (March, 1898), 8:85 (March 9, 1899); Ty. & Ry. 9:563 (Nov. 8, 1900). 56

Brockton, Mass. "Operation of the Sewage Filter Beds of Brockton, Mass., in 1896." (Report of F. Herbert Snow) Engng. News 37:307 (May 20, 1897); Felton, Charles R. Engng. News 43:213 (March 29, 1900). 57

"**Bromley [Eng.]**, Public Libraries." Brady, C. E. London 7:15 (Jan. 6, 1898). 58

"**Brookfield [Mo.]** Sewerage System." Garrett, R. P. Engng. Rec. 42: 590 (Dec. 22, 1900). 59

Brookline, Mass.

"Bath House, Brookline's Model." Crosby, William B. Self-Cult. 9:314 (May, 1899); Stewart, J. A. Am. J. Sociol. 5:470 (Jan. 1900); anon. Eng. Rec. March 6, 1897. 60

"Brookline: A Model Town Under the Referendum." Flower, B. O. Arena 19:505 (April, 1898). 61

Brooklyn. (See under **New York City.**)

Brooklyn Idea of City Government. (Concentration of power in the hands of the Mayor. See under **Mayor.**)

Brünn, Austria.

Hospital. "Die Epidemie-Spital in Brünn." Gesund.-Ing. Feb. 28, 1897. 62

Statistics of Brünn. (See Statistics under **Austria.**)

Brussels.

Housing. "Tenement Houses in Brussels." Roosevelt, Geo. W. U. S. Consular Reports Vol xlviii., No. 178, p. 386-398. 63

Parks, etc. "Monuments and Parks of Brussels." Park & Cem. 8:74 (June, 1898). 64

Sanitation. "La Salubrité Publique à Bruxelles." d'Esmenard, E. R. Municipale 2:1596 (Sept. 30, 1899). 65

"Sewage Disposal, Brussels." Roosevelt, Geo. W. See 56-40a, 40b. 66

——. "Sewerage System of Brussels." Thompson, Gibson. Paving and Municipal Engineer, Nov. 1894. 67

——. "Etudes sur les Egouts de Londres, Bruxelles et de Paris." Tenier, Charles. Paris, Delahaye et Cie., 1897. 1 fr. 25 cts. 68

Streets. "L'Entretien de la Voie Publique à Bruxelles." R. Municipale 3:2099 (May 5, 1900). 69

Transit Facilities. "Brussels' Electric Tramways." Ry. World 7:88 (March, 1898). 70

Budapest.

"Budapest." Freson, J. G. Revue Generale (Brussels) May, 1897; Shaw, Albert. Cent. 22:163 (1892). See also his "Municipal Govt. in Continental Europe." pp. 435-468; Terhune, Everitt Bogert. National M. 11:655 (March, 1900). 71

Bridges. "Die Franz-Josefs-Brücke in Budapest." Zeitschr. d. Oesterr. Ing. u. Arch. Ver. Feb. 26, 1897; Engng. May 15, 1897. 72

Budapest.—*Continued.*

Sewerage. "Pumpmaschinen der Budapester allgemeinen Kanalisationwerke." Zeitschr. d. Ver. Deutscher Ing. Jan. 2, 1897; Mueller, O. N., Jr. Engng. News 38:280 (Nov. 4, 1897). 73

Transit Facilities. Crépy, P. Le Revue Technique Aug. 10, 1898; Dubsky, Alfred O. Cassier's 16:91 (June, 1899); Kollman, J. Electrician Nov. 6, 1896; anon. Transport (London) Jan. 29, 1897; Ry. World (London) April, 1897; Schw. Bauz, April 10, 17, 1897; St. Ry. Rev. 7:301 (May 15, 1897). 74

——"Electric Street Railways of Budapest, an Object Lesson for American Cities." R. of Rs. 11:287 (1895). 75

Water Works. "Der Donautunnel des Wasserwerkes von Budapest." Deutsche Bauzeitung Oct. 24, 1896; Le Génie Civil July 31, 1897.

Buenos Ayres.

"The City of Buenos Ayres." Curtis, William Eleroy. Chaut. 29:249 (June, 1899); Public Improvements 1:146 (Aug. 15, 1899); Ebelot, A. Monde Moderne (Nov. 1897). 77

Housing. Workmen's Dwellings in Buenos Ayres. "Les Logement Ouvriers à Buenos Ayres." Gache, Samuel. Paris, Steinheil, 1900. 78

"Street Railway System of Buenos Ayres." St. Ry. J. 13:395 (July, 1897). 79

Buffalo, N. Y.

City Government, General Works and Unclassified.

"City of Buffalo." Shepard, F. J. New Eng. M. 14:237 (1893). 80

"Government of Buffalo with especial Reference to Public Works." Guthrie, E. B. J. Assoc. Engin. Soc. March, 1892, p. 123. 81

"Municipal Buffalo, or How a Model Municipality is Governed in the United States." M. & C. 4: Nos. 6, 7 and 8, 22 pp. (Aug. 1897).

"Municipal Condition of Buffalo." Loomis, Frank M. p. 344, Proc. Second Natl. Conf., 1895. See 6-18b. 82

"Well Governed Buffalo." Ralph, Julian. Hrprs. Wkly. 39:812 (1895). 83

"Bath House, Buffalo Free." Engng. Rec. Sept. 19, 1896. 84

"Building Operations, Statistics of, Buffalo, Rochester and Syracuse." B. Labor Stat. New York 1:170 (Dec. 1899). 85

——. "Building Ordinances of Buffalo, N. Y., Criticism of." Engng. Rec. July, 11, 1896. 86

Charities. "Outdoor Poor Relief in Buffalo." Richardson, A. C. Ann. Am. Acad. Pol. Sci. 14:275 (Sept. 1899). 87

"Garbage Disposal at Buffalo." Drake, M. M. City Govt. 7:150 (Dec. 1899). 88

"History of Buffalo, N. Y." Mahany, Rowland B. See 1-4b.

Lighting. "Electric Lighting Progress in Buffalo, N. Y." Elec. R. 31:75 (Aug. 18, 1897). 89

——. "The Sale of the Buffalo Gas Interests." (Editorial.) Prog. Age. 15:424 (Oct. 1, 1897). 90

"Park and Parkways on the South Side of Buffalo." Olmstead, Frederick Law. Buffalo. Pamphlet, 1888. 91

"Schools of Buffalo, Public." Rice, J. M. Forum 14:293 (1892). 92

Settlements. Westminster House, Articles on. Brush, E. H. Ind. 48:1001 (July 23, 1896); anon. Outlook Nov. 16, 1895, 56:420 (June 12, 1897), Commons (June, 1896). 92a

"Street Cleaning in Buffalo." Municipality and County, April, 1895. 93

"Street Paving in Buffalo." City Govt. 1:50 (1896); Guthrie, Edward B. Pro. Am. Soc. Mun. Imp. 5th yr., pt. II, p. 123 (Oct. 1898). 94

Transit Facilities. "Street Railways of Buffalo." St. Ry. Jour. Aug. 1894, Dec. 1896. 95

Water Works. Guthrie, Edward B. Engng. Rec. 38:362 (Sept. 24, 1898); Knapp, Louis H. J. N. E. W. W. Assoc 14:240 (March, 1900). 96

Building Laws. (See also **Architecture, Fires, Housing, Sanitation.**)

See also Berlin, Boston, Brooklyn, Buffalo, Chicago, Dresden, Edinburgh, England, France, Germany, Leipsic, Mainz, New York, Zurich.

"Building Departments and Building Materials." Arch. & Buil. 30:121 (April 22, 1899). 97

"Building Laws, Comparison of Municipal." Phillips, H. A. Am. Arch. 35:38 (1892), 39:26, 40:115 (1893). 98

——. "Die Wohnungsgesetzgebung." Kalle. Gegenwart 32:433 (1899). 99

——. "Comparative Municipal Building Laws." Am. Arch. 33:66, 150 (1891). 100

——. "The Enforcement of Building Laws." Arch. & Buil. 28:25 (Jan. 15, 1898). 1

——. "Need of Uniform Building Laws." Fryer, William J. Engng. M. 5:756 (1893). 2

——. "The Building Code as Influencing Municipal Improvements." Hill, Geo. Public Improvements 2:99 (Jan. 1, 1900). 3

——. "Building Regulations." Chapter VI, pp. 91-130 Eighth Special Report of the Commissioner of Labor on "The Housing of the Working People," by E. R. L. Gould. 4

——. Annotated Building Regulations. "Normale Bauordnung nebst Erläuterungen." Baumeister, R. Wiesbaden, 1880. 5

——. "Fire and Building Regulations in Foreign Countries." (Reports from 146 foreign countries and cities.) U. S. Spl. Consular Reports Vol. viii., 543 pp. (1892). 6

Building Reform in Cities. Schmidkunz. Oesterr. Monatschrf. d. Oeffent. Baudienst Feb. 1898. 7

"High Buildings." Himmelwright, A. L. A. No. Am. 163:580 (1896). 8

——. "Arguments for and against Tall Buildings." Huss, Geo. Martin and Ernest Flagg. Arch. & Builder, Jan. 18, 1896. 9

——. "High Building Bill, Discussion of the." Arch. & Buil. May 23, 1896. 10

——. "The High Buildings of the Ancients." Sci. Am. Sup. 46:18917 (Aug. 13, 1898); Arch. & Buil. 29:70, 87 (Aug. 27, Sept. 10, 1898). 11

——. "Against High Buildings." Fire and Water Dec. 5, 1896. 12

——. "High Buildings." (Objections presented in discussion before the New York Board of Trade). Fire and Water Dec. 26, 1896. 13

——. "Dangers from Tall Office Buildings." Goetz, Henry A. Engng. M. 2:792 (1892). 14

——. "Dangers of the Sky-Scrapers." (Chief Bonner's explanation of his opposition to high buildings.) Arch. and Buil. Dec. 12, 1896. 15

——. "A Defence of High Buildings." Blackall, C. H. Brick Builder, Feb. 1896. 16

——. "Different Interests Involved in the Sky-Scraper." (Editorial.) Arch. and Buil. 26:37 (Jan. 23, 1897). 17

——. "Electric Plant of the Modern Tall Building." Pattison, F. A. Engin. M. 13:782 (Aug. 1897). 18

——. "Elevators, High Buildings and Safe." Engng. News Nov. 26, 1896, Dec. 3, 1896. Quoted at length in the Sanitarian 38:44 (Jan. 1897). 19

——. "Tall Buildings and the Speed of Elevators." Hill, George. Engng. Rec. Feb. 6, 1897. 20

——. "Engineering Problems of Tall Buildings." Brown, C. O. Engin. M. 13:406 (June, 1897). 21

——. "Fire Risks on Tall Office Buildings." Atkinson, Edward. Engng. M. 3:149 (1892). (See also under **Fires.**) 22

——. "The Heights of Tall Buildings." Engng. Rec. 42:217 (Sept. 8, 1900). 23

——. "Limitations to Height of Buildings." Ball, Robt. S. Engng. T. July, 1899; Engng. Rec. Jan. 18, 1896; Real Estate Rec. & Guide, Jan. 16, 1892, p. 66, Feb. 1, 1896, p. 173; Feb. 22, 1896, p. 298; March 7, 1896, p. 383. 24

——. "Regulation of Tall Building Construction." (Regulations in force in Continental European Cities.) Engng. Rec. Jan. 2, 1897. 25

——. "Maisons Hautes en Angleterre et en Amerique." Calonne, Alphonse de. Rev. d. deux Mondes 122:855 (1894). 26

——. "The Modern Business Building." Steffens, J. L. Scrib. M. 22:37 (July, 1897). 27

Building Laws—*Continued.*

——. "The Modern Tall Building." Brainard, Owen. Chaut. 26:131 (Nov. 1897). 28

——. "Planning and Construction of High Office Buildings." Birkmire, William H. Arch. and Buil. 25:271; 26:27, 99, 135, 199, 259, 295; 27:39 (1896-97). 29

——. "How to Make High Buildings Safe." Clarke, Christopher. Fire and Water, Feb. 6, 1897. 30

——. "The Sky-Scraper up to Date." Schuyler, Montgomery. Arch. Rec. 8:231 (Jan.-March, 1899). 31

——. "Two Sky-Scrapers, and a Moral." Real Estate Rec. and Guide May 18, 1895, p. 824. 32

——. "The Tall Business Building." Adler, D. Cassier's M. July, 1897. 33

——. "Tall Office Buildings, Past and Future." Adler, Dankmar. Engng. M. 3:765 (1892). 34

——. "The Tall Building from an American Point of View." Hamlin, A. D. F. Engng. M. 14:436 (Dec. 1897). 35

——. "The American Tall Building from a European Point of View." Capper, S. H. Engng. M. 14:239 (Nov. 1897). 36

——. "Weighing of Tall Buildings." Waters, Theodore. Southern Architect (Atlanta.) May, 1897. 37

"Inspection of Buildings." Franklin, Benjamin. Pro. Eng. Club, Phila. 15:77 (March, 1898). 38

——. "How Can Better Inspection of Buildings Be Secured?" Engng. News Oct. 1 1896. 39

——. "Police des Constructions, etc." Lukomski, T., Périn, J. Paris, 1869. 40

——. Baupolizei. Loening, Edgar. Vol. II. pp. 515-531 Conrad, 2d ed. 1898. See 2-10. 41

"Municipal Control of Buildings, The." Longstaff, G. B. Builder, Nov. 30, 1895. 42

"Paris Fire and the Building of Temporary Structures, The." Statham, H. Heathcote. Engin. M. 13:504 (July, 1897). 43

"Public Squares, Buildings on. Attorney-General v. Williams et al." Mun. Aff. 3:720 (Dec. 1899). 44

"Restraints upon the Practice of Architecture." Robinson, John Beverly. Engng. M. 11:307 (1896). (See also under **Architecture.**) 45

Sky-Scrapers. (See High Buildings above.)

"Theatern, Circusgebäuden und öffentlichen Versammlungsräumen, Polizeiverordnung betreffend die bauliche Anlage und die innere Einrichtung von." Berlin, Carl Heymann, 1891. 44 pp. 46

Bulgaria, Local and Municipal Government in. Demombynes Vol. I. pp. 783-795. See 2-11. 47

Burial in Cities, Cemeteries, Cremation, Etc.

See also Berlin, Boston, Camden (N. J.), Coventry (Eng.), France, Germany, Italy, London, Milan, New York, Paris, San Mateo (Cal.), United Kingdom, Zürich.

Burial. "Sanitary Mausoleum Company's System." J. Frankl. Inst. 129:306 (1889). 48

——. "Die Bestattung der Todten in Bezug auf Hygiene, geschichtliche Entwickelung u. gesetz. Bestimmungen bet." Wernher, Adf. Giessen, Ricker, 1880. 2m. 49

——. "Beerdigungswesen." Rahts, C. Vol. II, pp. 538-544 Conrad; 2d ed. 1898. See 2-10. 50

——. "Cemeteries." Garden & F. 5:231, 242, 253, 301 (1892). 51

——. "God's Acre Beautiful or the Cemeteries of the Future." Robinson, W. L. London, Garden Off. 1883. 8vo. 7s. 6d. 51a

——. "Graveyards as a Menace to the Commonweal." Windmüller, L. No. Am. 167:211 (Aug. 1898). 52

——. "La Question des Cemetières. Etude sur les sources, sur la jurisprudence." Ashman, Henri, et van den Heuvel, Jules. Bruxelles, Larcier, 1897. 8vo. 2 fr. 53

——. "The Modern Cemetery." Farmar, A. Overland n. s. 29:440 (April, 1897). 54

Cremation. Cameron, G. Scot. R. 10:1 (1887); Chadwick, J. W. Forum 1:272 (1886); Cobb, A. G. No. Amer. 135:266 (1882); Coxe, A. C. Forum 1:64 (1886);

Burial in Cities, Cemeteries, Cremation, etc.—*Continued.*

Gordon Cumming, C. F. Contemp. 43:858 ((1882); Gould, S. B. Chambs. J. 69:428 (1892); Miller, O. T. Pop. Sci. Mo. 37:763 (1890); Newman, A. S. Westm. 139:654 (1892), Ecl. M. 121:130 (1893); Thompson, H. 19th Cent. 23:1 (1887). 55

——. Cremation. Pp. 396-399 Encyc. Soc. Ref. See 1-3.

——. "Christianity, Cremation and." Mancini, I. Dub. R. 106:384 (1889); Bigelow, A. G. No. Am. 143:353 (1886); Shinn, G. W. Church R. 47:73 (1885). 56

——. "Crematories." Am. Arch. 12:22 (1890), Current Literature 24:434 (Oct. 1900). 57

——. "Crime, Cremation as an Incentive to." Horden, F. S. J. Soc. Arts. 41:21 (1893). 58

——. "Desirability of Cremation for Infected Bodies." Smith, J. H. Arena 15:603 (1895). 59

——. "Hygiène, Inhumation, Crémation ou Incineration des Corps." Cadet, A. Paris, Germer, Bailliere et Cie., 1881. 12mo. 2 fr. 60

——. "Incineration of the Dead." Holmes, Howard M. Modern Crematist, July, August, 1887. Also printed separately in pamphlet form. 11 pp. 61

——. "La Crémation et ses bienfaits." Bonneau, Alex. Paris, Dentu, 1886. 12mo. 3 fr. 62

——. "La Crémation devant l'Histoire la Science et le Christianisme." de Hornstein, Edouard. Paris. Dentu, 1886. 8vo. 6 fr. 63

——. "La Crémation, Histoire, Hygiéne Technique." Reber, B. Geneva, Burkhard, 1888. 8vo. 1 fr. 50c. 64

——. "Les cimetières et la crémation, étude historique et critique." Martin, F. Paris, J. B. Bailliere et fils. 1881. 8vo. 5 fr. 65

——. "L'Incineration aux points de vue hygienique et historique." Golde (Mlle.) Paris, Maloine, 1896. 4to. 3 fr. 66

——. "Modern Cremation: its History and Practice." Thompson, H. pp. 108-136, Vol. vi, Woods, Medical and Surgical Monographs. New York, William Wood & Co., 1890. 67

——. "Opinions on Cremation." (Letters from one hundred prominent persons.) New York. Collected and published by the United States Cremation Company, Limited, 1889. Pamphlet. 55 pp. 68

——. "Ueber Feuerbestattung." (Diagrams, bibliography of French and German works). Goppelsroeder, Friedrich. Mülhausen, Wenz & Peters, 1890. Pamphlet. 108 pp. 69

"**Burlington [Iowa]**, The New Sewer Outfall at." Mun. Engng. 19:267 (Oct. 1900). 70

Bury, Eng.

"Housing Problem at Bury." San. Rec. 26:202 (Sept. 7, 1900). 71

"Sewerage and Sewage Disposal at Bury." Surveyor 18:648 (Dec. 7, 1900). 72

Business Men in Municipal Government, Business Theory of City Government. (See under **City Government, General Works and Unclassified.** 2-23, et seq).

"**Cairo, Egypt**, Electric Street Railroads in." Elec. World 32:716 (Dec. 31, 1898); Ry. World 8.245 (July 6, 1899). 73

Caisses d'Epargne. (Municipal Savings Banks. See under **Savings Banks.**)

Calbe [Ger.] Water Works. "Das Wasserwerk der Stadt Calbe." Zeitschr d. Ver. Deut. Ing. (Berlin) March 13, 1897. 74

Calcutta [India] Drainage Scheme. Indian Engineering (Calcutta). Jan. 28, 1897. 75

California.

"Conditions in California, Municipal." Phelan, James D. Arena 17:989 (June, 1897). 76

"Department Store in the West: 'America's Grandest' in California." Carlin, Eva V. Arena 22:330 (Sept. 1899). 77

California—*Continued.*

Elections. "Primary in California, The." Nye, A. B. Nation 34:74 (Jan. 26, 1882). 78

——." California Primary System." Stratton, F. S. N. Y. Conference on Practical Reform of Primary Elections, p. 137. Chicago, Hollister, 1898. 8vo, 150 pp. Paper. 79

Finance. "Municipal Indebtedness." Mason, H. W. City Govt. 8:135 (May, 1900); Cal. Mun. 2:161 (June, 1900). 80

——." General Property Tax in California." Plehn, Carl C. Publications of the American Economic Association. Economic Studies. Vol. II. No. 3. New York, Macmillan, 1897. 198 pp. 50 cts. 81

——." Mortgage Tax, the California." Plehn, Carl C. Ind. 50:143 (Feb. 3, 1898). 81a

——." Uniform Municipal Accounting, Report of the Committee on." Breed, A. H. Cal. Mun. 3:145 (Dec. 1900). 82

" Laws, The Work of the Code Commission in Relation to Municipal." Bulla, John N. Cal. Mun. 1:70 (Oct. 1899). 82a

" League of California Municipalities, The." Phelan, James D. Cal. Mun. 1:3 (Aug. 1899). 83

" Local Improvements within Municipalities, Proposed Act to Provide for." Cal. Mun. 3:108 (Nov. 1900). 84

" Water Works, Experience of [California] Cities with Municipal." Cal. Mun. 1:211 (Feb. 1900). 85

" **Calumet [Mich.]**, A Unique Municipality." Curtis, William Eleroy. Chaut. 29:33 (April, 1899). 86

Camberwell. (See under **London.**)

Cambridge, Eng.

History. " Township and Borough." (Early History of Cambridge.) Maitland, Frederic William. Cambridge, University Press, 1898. 8vo, 220 pp. Cl. 10s. 87

Lighting. " Electricity Supply Works." Elec. Eng. (Lond.) 25:42 (Jan. 12, 1900). 88

" Sanitary Engineering Refuse Disposal Plant at Cambridge, Eng." Fuertes, James H. Eng. Rec. March 20, 1897, Engng. Rec. 38:290 (Sept. 3, 1898). 89

Cambridge, Mass.

Description and Statistics of Cambridge, Mass., in 1880. Census. See 1-7.

" History of Cambridge, Mass." Eliot, Samuel A. See 1-4a; also anon. Census. See 1-7.

Liquor Problem. "A City without Saloons." Foxcroft, Frank. Ind. 49:635 (May 20, 1897). 90

" Non-Partisan City Government, A." Douglas, Francis J. Outlook 58:963 (April 16, 1898). 91

——." Non-Partisan Municipal Elections: Work of the Library Hall Association, Cambridge, Mass." Wright, Geo. G. Mun. Aff. 4:363 (June, 1900). 92

Parks. " A Feature of Park Development in Cambridge, Mass." Park & Cem. 7:266 (Feb. 1898); Park & Cem. 10:29 (April, 1900). 93

" Record of the City Government, 1898." Library Hall Ass'n, Cambridge. Cambridge, Mass., Library Hall, 1898. 8vo, 43 pp. Pamphlet. 94

Settlements. " Prospect Union at Harvard." Berry, Louis F. Outlook 63:691 (Nov. 18, 1899). 94a

" Water Works of Cambridge, Mass." Hastings, L. M. J. New Eng. Water Works Assoc. Dec. 1896; Fire & W. March 20, 1897, 22:434 (Dec. 4, 1897). 95

Camden, N. J.

Cemeteries. " Camden, N. J., Harleigh Cemetery." Park & Cem. 7:138 (Aug. 1897). 96

" Water Works of Camden, N. J." Fire & W. 22:300 (Aug. 21, 1897); Engng. Rec. 39:520 (May 6, 1899); Engng. News 41:297 (May 11, 1899). 97

Canada.

Finance. Local Indebtedness in Canada, Part III. "Public Debts in Canada." Perry, J. Roy. Toronto, University of Toronto Studies: Economic Series No. 1, 1898. 8vo, 88 pp. Paper, 50 cts. 98

—. "A Provincial Municipal Auditor." Municipal World 7:67 (April, 1897).

"Local Government in Canada." Bellot, H. H. L. Westm. 140:281 (1893); Bourinot, J. G. J. H. Univ. Studies V: 5 and 6 (1887), 50 cts.; Wickett, S. M. Pol. Sci. Q. 15:240 (June, 1900). 99

"Municipal Amendment Act, The." Mun. World 7:116 (June, 1897). 100

Sewage Disposal. See 56-40b.

"Telephone Service in Canada." Bittinger, John L., and Sewell, William L. Cons. Rep. 50:341 (June, 1899). 1

"Water Works Expropriations in Canada." Chipman, Willis. Toronto, Canada, 1899. 8vo, 10 pp. 2

"**Canterbury [Eng.]** as a Civic Center." Mun. J. & London 8:1261 (Nov. 24, 1899). 3

"**Canton, O.,** Sewage Disposal Works at." Chapin, L. E. J. Assoc. Engin. Soc. 13:115 (1894); Engin. News, June 1, 1893, pp. 520, June 10, 1893, pp. 27, July 20, 1893, pp. 60, Sept. 14, 1893, pp. 217. 4

Cape Cod Towns.

"History of Cape Cod Towns." Bates, Katherine Lee. See 1-4a. 4a

"Town Government on Cape Cod." Hart, A. B. Nation 56:343 (1893). 5

Cape Town.

"Local Government, Cape Town." Mun. J. & London 8:1070 (Sept. 29, 1899); Mun. J. & London 9:137 (Feb. 23, 1900). 6

"Sanitary Works in Cape Town." Cowie, Alexander. San. J. 4:612 (Feb. 1898). 7

Cardiff, Wales.

"Architecture of Cardiff, Wales." Builder March 13, 1897. 8

"Sewage Disposal and Sewage Farm, Cardiff." Howells, Anthony. See 56-40a. 9

Transit Facilities. "Tramway Traction." Surveyor 17:452 (April 27, 1900); 17:476 (May 4, 1900); 17:510 (May 11, 1900); Mun. J. 9:262 (April 6, 1900). 10

"Water Filtration at Cardiff Wales." Engng. Rec. 38:94 (July 2, 1898). 11

Carlisle, Eng.

History. "Carlisle." Creighton, Mandell. London, Longmans (Historic Town Series), 1887. 8vo. 3s. 6d. (For other references on the history of Carlisle see p. 188, Gross' Bibliography of British Municipal History). 12

"Lighting, Carlisle, Electric." Burnet, Charles D. Surveyor 17:594 (June 1, 1900). 13

"Public Works in Carlisle, Some of the." Marks, Henry C. Surveyor 17:589 (June 1, 1900). 14

Transit Facilities. "Electric Tramways." Ty. & Ry. World 9:477 (Oct. 11, 1900). 15

"**Catania,** Electric Tramways in." Brühl, Louis H. U. S. Consular Reports 56:53 (Jan. 1898). 16

Caucus System. (See under **Elections.**)

Cemeteries. (See under **Burial in Cities.**)

Census Reports of the United States. The following volumes and bulletins of the Tenth, Eleventh and Twelfth Censuses of the United States (1880, 1890, 1900) are cited as bearing most directly upon the subject of municipal administration.

TENTH CENSUS, 1880.

"Defective, Dependent and Delinquent Classes, Report on." Wines, F. H. Wash-

Census Reports of the United States—*Continued.*

ington, Government Printing Office, 1888. 581 pp. 17

"Mortality and Vital Statistics." Billings, J. S. Washington, Government Printing Office. Part I, 767 pp. 1885. Part II, 803 pp. 1886. 18

"Population at the Tenth Census, Statistics of the." Washington, Government Printing Office, 1883. 961 pp. 19

"Social Statistics of Cities." Waring, Geo. E. Part I, New England and the Middle States, 915 pp. Part II, The Southern and Western States, 843 pp. (Sketches giving history, description, maps and statistics for 1890 of 123 larger American cities.) Previously listed among works of reference. See 1-7. Washington, Government Printing Office, 1886.

"Valuation, Taxation and Indebtedness." Porter, Robt. P. Washington, Government Printing Office, 1884. 909 pp. 20

ELEVENTH CENSUS, 1890.

"Crime, Pauperism and Benevolence." Wines, F. H. Washington, Government Printing Office, 1895. 1035 pp. 21

"Social Statistics of Cities." Billings, John S. Washington, Government Printing Office, 1895. 137 pp. 22

"Statistics of Cities." Part II of the "Report on Manufacturing Industries in the United States." 23

"Transportation Business in the United States." Adams, H. C. Part I, pp. 679-867 on Street Railway Transportation. 24

"Vital Statistics of Boston and Philadelphia, covering a period of six years, ending May 31st, 1890." Billings, John S. Washington, Government Printing Office, 1895. 269 pp. 25

"Vital Statistics of the District of Columbia and Baltimore, covering a period of six years, ending May 31st, 1890." Washington, Government Printing Office, 1893. 241 pp. 26

"Vital Statistics of New York City and Brooklyn, covering a period of six years, ending May 31st, 1890." Washington. Government Printing Office, 1894, 529 pp. 27

"Wealth, Debt and Taxation." Upton, J. Kendrick. Washington, Government Printing Office, 1892. 890 pp. 28

TWELFTH CENSUS, 1900.

"Population of Cities having 25,000 inhabitants or more in 1900." (Gives figures for 1890 and 1880 for comparison; covers whole U. S.). Census Bulletin No. 11, Twelfth Census of the U. S. Washington, D. C., Oct. 25, 1900. 15 pp. 29

"**Central Falls, R. I.,** Sewage Disposal Plant at." Keene, W. F. Engng. Rec. April 24, 1897; anon, Engng. News 40:133 (Sept. 1, 1898). 30

"**Chamberlain, Joseph,** Municipal Career of." Dolman, F. Fortn. 63:904 (1895). 31

Charities, City. (See also **Church and Municipal Conditions, Settlements, Unemployed in Cities.**)

See also Antwerp, Austria, Australia, Bavaria under Germany, Belgium, Berlin, Boston, Brooklyn, Buffalo, Chicago, Cincinnati, Detroit, France, Germany, Glasgow, Hamburg, Hartford, Holland, Italy, Leipsic, London, Madgeburg, Milan, New Haven, New Jersey, New York, Ohio, Oxford (Eng.), Paris, Philadelphia, Russia, San Francisco, Turkey, United Kingdom, United States, Vienna.

"Administration, Charity." Cosmopol. Aug. 1896, p. 446.

"American Charities." Warner, Amos G. New York, Thos Y. Crowell & Co., 1894. 430 pp. $1.75. 32

"Aspects of the Social Problem." Bosanquet, Bernard. London and New York, Macmillan, 1895. 344 pp. $1. 33

Associated Charities. (See under Organization of Charities below.)

"Causes of Pauperism and the Relation of the State to it." Wright, A. O. P. 146 "International Congress," vol. i, 1893, see 43-99. 34

Charities, General. "Armenwesen," by Aschrott and others. (With sketches of the poor laws of Germany, Austria, Hungary, Belgium, Denmark, France, Great

Charities—*Continued.*

Britain, Italy, Netherlands, Sweden, Norway, Switzerland, and the United States.) "Obdachslose," by Loening. Vol. I, pp. 1052-1210, 2d ed. '98 and Vol. V, pp. 47-8, 1st ed. '93, Conrad. See 2-10. 34a

"Charities of Cities, A Draw for Beggars." Chambers, W. Chamb. J. 51:337 (1874), 55:273 (1878). 35

Child Problem in Cities.

"Baby Farming." Burt, F. P. Lend a H. 10:7 (1893.) 36

"Bibliography on the Care of Destitute, Neglected and Delinquent Children." Folks, Homer. Char. R. 10:217 (July, 1900.) 37

"Care of Children, The." Vol. V, Reports of the International Congress of Charities at Chicago, 1893. Baltimore, Johns 3 (Dec., 1899—July, 1900.)

"Care of Destitute, Neglected and Delinquent Children." Folks, Homer. Char. R. 9:459, 516, 564; 10:36, 89, 129, 213, (Dec. 1899—July, 1900). 38

"Child and the Community, The." Campbell, Helen. Chaut. 9:458 (1890.) 39

"Child Labor." Kelley, Florence. Char. R. 6:221 (May, 1897.) 40

"Child Life Insurance." Waugh, B. London, Kegan, Paul & Co., 1890. 24 pp. 41

"Child Problem in Cities, The." Finley, John H. R. of Rs. 4:683 (1892.) 42

"Children of Charity." (Children's Aid Society, New York.) Sherman, Alma Seymour. Am. M. Civics 7:177 (1895.) 43

"Children of the Other Half." Hull. W. I. Arena 17:1039 (June, 1897.) 44

——. "Children of the Poor." Riis, J. A. New York, C. Scribner's Sons, 1892. 300 pp. $1.25. 45

——. "Children of the Poor," "Genesis of the Gang," "Justice for the Boy." Riis, Jacob A. Scrib. M. 11:531 (1892), Atlan. 84:302, 637 (Sept., Nov., 1899.) 46

"Children of the State." Hill, Florence D. and Fowkes, Fanny. London and New York, Macmillan, 1889. 2d edit. 362 pp. $1.75. 47

"Children of the Town." Kingsmill, Esther T. Canadian M. July, 1897. 48

"Criminal Children, Homes for." Fowkes, Fanny. Lend a H. 5:527, 607 (1890). 49

——. "Value of Discrimination in Dealing with Juvenile Offenders." Putnam, Elizabeth C. P. 100 "International Congress," vol. v, 1893, see 43-99. 50

"Curfew for City Children." Townsend, [Mrs.] John D. No. Am. 163:725 (1896.) 51

"Dependent Children and Family Homes." Letchworth. William P. Char. R. 7:577 (Sept. 1898); Sanitarian 11:3 (Jan. 1898). 52

"Family Life for Dependent and Wayward Children." Folks, Homer. Pp. 69-80, 112-128 "International Congress," vol v, 1893, see 43-99. 53

"Foundlings and Illegitimate Children." Wilson, Anna T. P. 57 "International Congress," vol. v, 1893, see 43-99. 54

"George Junior Republic, The." Commons, J. R. Our Country 4:247 (Jan., 1897); Am. J. Sciol. 3:281, 433 (Nov., 1897, Jan., 1898); Hull, Wm. I. Ann. Am. Acad. Pol. Sci. 10:73 (July, 1897); Humphreys, Mary G. McClure's 9:735 (July, 1897.) 55

"History of Child Saving in the United States, Report of the Committee on the." Twentieth National Conference of Charities and Corrections in Chicago, June, 1893. Boston, Geo. H. Ellis, 1893. 321 pp. $1.50. 56

"Importation of Dependent Children from other States." Randall, C. D. P. 24 "International Congress," vol. v, 1893, see 43-99. 57

Kindergartens. (See under **Schools.**)

——. "Our Toiling Children." Kelley, Florence. Chicago, Woman's Temperance Publication Association, 1889. 40 pp. 58

"Physical and Mental Condition of Children in Charitable Institutions and Public Schools, Notes on two Recent Inquiries into the." Morse, Francis R. P. 152 "International Congress," vol. v, 1893, see 43-99. 59

"Placing-Out System in the Light of its Results." White, Francis H. P. 81 "International Congress," vol. v, 1893, see 43-99. 60

"Poor Law Children, Conference on." London 6:653 (July 29, 1897.)

——. "Poor Law School Children." Harston, Frederick. Mun. J. & London 8:1387 (Dec. 29, 1899.) 61

"Protection of Neglected and Abused Children." Fay, Frank B. P. 129 "International Congress," vol. v, 1893, see 43-99. 62

"Protection of Children." McCallum, M. Ch. IV., p. 46. Bosanquet's "Aspects

Charities—*Continued.*

of the Social Problem." London, Macmillan, 1895. 343 pp. $1. 63

——. "Reform of the Law Affecting the Labor of Women and Children." R. Pol. et Parl. May 10, 1897.

"Social Responsibility towards Child-Life." Spencer, Anna Garlin. P. 6 "International Congress," vol. v, 1893, see 43-99. 64

"The State of Prisons and of Child Saving Institutions in the Civilized World." Wines, E. C. Cambridge University Press, 1880. 8vo, 719 pp. 25s. 65

"State Adoption of Street Arabs." Samuels, [Mrs.] A. Fortn. No. 373, p. 111 (Jan. 1898). 66

"Street Children." Waugh, B. Contemp. 53:825 (1890.) 67

"What Shall be Done with Dependment Children." Williams, H. S. No. Am. April, 1897. 68

Churches, Charity and the. "Signs of the Times and the Churches." Strong, Josiah. Char. R. 6:5 (March 1897.) (See also under **Churches.**) 69

"Colonization as a Remedy for City Poverty." Peabody, F. G. Forum 17:52 (1894.) 70

"Crime, Pauperism and." Weber, John B. P. 131 "International Congress," see 43-99. 71

"Darkest England and the Way Out, In." Booth, Charles. London, Published by the Salvation Army, 1890. 285 pp. 3s. 6d. (See also **Church and Municipal Conditions.**) 72

"Dispensary Charity, Abuse of." Roosevelt, Theodore. Char. R. 3:127 (1894.) (See also under Hospitals below.) 73

——. "Municipal Dispensaries." Sanders, C. Public Health, June, 1900. 74

"Elberfeld System of Poor Relief." Münsterberg, Th.; Thoma; Seyffardt, L. F. Pp. 187, 200, 207 "International Congress," vol. iii, 1893, see 43-99. 75

——. "Reports on the Elberfield Poor Law System and German Workmen's Colonies." Parliamentary Papers, London, Eyre and Spottiswoode, 1888. 137 pp. 9d. 76

Employment Bureaus. (See under **Labor and the Municipality.**)

"Financial Problems of Private Charities." Charities 4:1 (May 26, 1900.)

"Fresh Air Charity in the United States." Ufford, Walter Shepard. New York, Bonnell, Silver & Co. Thesis presented at Colum. Univ. 1897. Pamphlet, 144 pp. Cl. $1; paper 50c. Also article by same author, Char. R. 6:230 (May, 1897.) 77

——. "Verhandlung des Internationalen Kongresses für Ferienkolonien, etc. in Zürich am. 13 u. 14 August, 1888." Hamburg u. Leipsic, Voss 8vo, 115 pp. 2m. 2m.

"Friendly Visiting." Chant, L. O. Lend a H. 11:431 (1893); Clews, Elsie. Char. R. 6:247 (May, 1897); Hamlin, Leonora. Char. R. 6:322 (June, 1897); Wolcott, (Mrs.) Roger. P. 108 "International Congress, vol. iii, 1893, see 43-99. 78

"Future of City Charities." Hunter, R. Nineteenth Cent. 27:72 (1890.) 79

"Future Problem of Charity and the Unemployed." Brooks, J. G. Ann. Am. Acad. Pol. Sci. 5:1 (1894.) Separate pamphlet, 27 pp. 25 cts. 80

George Junior Republic. (See above.)

"Hindoo Charity." Char. R. 6:302 (June, (1897).

History. Mutual Aid in the Mediaeval City. Kropotkin, P. Humanité Nouvelle (Oct., 1898.) 81

"Home Making, Charity and." Richmond, Mary E. Char. R. 6:118 (April, 1897.) 82

Hospitals. (See also Dispensaries above.)

Ambulance Service. "Le Service des Prompts Secours." Strauss, Paul. R. Municipale 3:2105 (May, 1900.) 83

"Burdett's Hospitals and Charities, the Year Book of Philanthropy and Hospital Annual." (British, American and Colonial.) Burdett, Henry. London and N. Y., Scribners, published annually. Edition for 1899. 8vo, 1002 pp. 5s. 84

"Public Hospitals." Folks, Homer. Mun. Aff. 2:271 (June, 1898.) 85

"Construction of Hospitals." Henman, William. (Deals principally with the design of large town hospitals.) J. Roy. Inst. of Brit. Archts. (London), May 6, 1897. 86

"Handbook for Hospitals." (List of books of reference, p. 265.) Worlsey, Abby Howland. New York, G. P. Putnam, 1895. 267 pp. 87

Charities—*Continued.*

"Hospitals and Asylums of the World." (Vol. I Asylums, Vol. II. Asylum Construction, Plans and Bibliography, Vol. III. Hospitals, History and Administration, Vol. IV. Hospital Construction and Bibliography.) Burdett, Henry C. London, J. A. Churchill, 1891, '93. 8vo, 701, 337, 944, 463 pp. 168s. 88

"Hospitals, Dispensaries and Nursing." Edited by John S. Billings and Henry M. Hurd. Balto., Johns Hopkins Press (Intl. Conf.), 1894. 8vo, 718 pp. 89

"Hospitals, Dispensaries and Nursing." Hurd, Henry M. Char. R. 10:298 (Sept., 1900.) 90

"Isolation Hospitals, The Value of." Hill, Alfred. San Rec. 24:34 (July 14, 1899.) 91

"Medical Charity, Its Extent and Abuses." Westm. 101:174 (1874.)

"Municipal Hospitals." Fabian Soc. Tract No. 95, Dec. 1900, 1d.

"The Plumbing, Water Supply and Drainage of Hospitals." Gerhard, William Paul. New York, 1898. Pamphlet, 37 pp. 92

"Tuberculosis Hospitals, Municipal." (Editorial.) Sanitarian 43:74 (July, 1899.)

—. (See further under International Congress below.)

"How to Relieve the Poor and Prevent Poverty." Terrell, Ada K. Midland Mo. April, 1897. 93

"How Should a City Care for Its Poor." Peabody, Francis G. Forum 14:474 (1892.) 94

"Improvement in City Life." (Charity.) Robinson, Charles Mulford. Atlan. 83:524 (April, 1899.) 95

"Incidentals of Quasi-Public Charities." Johnson, A. Char. R. 1:152 (1892.) 96

"Industrial Condition of the Poor: Prolems of Poverty." Hobson, J. A. London, Methuen & Co., 1891. 227 pp. $1.25. 97

"Inebriate Pauperism, The Problem of." Crothers, T. D. P. 140 "International Congress," vol. i, 1893, see 43-99. (See also under **Liquor Problem in Cities**). 98

"International Congress of Charities, Reports of the,—Chicago, 1893." Baltimore, Johns Hopkins University Press, 1894. 5 vols. $1.50 each. Vol. I, Public Treatment of Pauperism; Vol. II, Hospitals, Dispensaries and Nursing; Vol. III, The Organization of Charities; Vol. IV, The Insane, Feeble Minded, Criminals; Vol. V, Care of Children, Sociology in Institutions of Learning. 99

"International Treatment of Charity Questions." von Reitzenstein, Baron. P. 185 "International Congress," vol. iii, 1893, see 43-99. 100

"Literature of Philanthropy." (Papers on Settlements and other Philanthropic subjects.) Goodale, Francis A. (editor.) New York, Harper & Bros., 1893. 12 mo, 205 pp. $1. 1

Medical Charities. (See under Dispensaries, Hospitals above.)

"Midnight in a Great City." (Sermons on poverty and vice in cities.) Myers, Cortland. New York, Merril & Baker, 1896. 12mo, 252 pp. $1. 2

"Missions and Mission Philanthropy." Goldie, John. London and New York, Macmillan, 1895. 212 pp. $1.50. 3

—. "City Missions and Social Problems." North, F. M. Meth. R. 53:228 (1893.) 4

—. "Missions in Workhouses." Mun. J. & London 8:762 (June 30, 1899.)

—. (See also under **Church and Municipal Conditions.**)

"Modern Charity Worker, The." Peabody, Francis G. Char. R. 6:17 (March, 1897). 5

"Municipal Charities." Folks, Homer. City Govt. 7:69 (Sept., 1899), Mun. Aff. 3:516 (Sept., 1899), Public Improvements 1:281 (Oct. 1, 1899); Other Side 1:181 (Oct. 21, 1899); pp. 32-36 in Proc. of the 3d annual convention of the League of Am. Municipalities, 1899. Low, Seth. Lend a H. 3:498 (1890.) 6

—. "Municipal and County Charities." (Report of Standing Committee to the 25th National Conference of Charities and Correction, New York, May 18-25, 1898.) Folks, Homer, Chairman. Boston, Geo. H. Ellis, 1898. Pamphlet, 79 pp. 7

"New York Conference of Charities." Folks, Homer. Char. R. 6:346 (June, 1897.) 8

Organization, Charity.

"Address on Organization of City and County Public Charities." Wylie, James R. Proc. Nat. Conf. Char. and Cor., held in Toronto, Ont., July 7-14, 1897. 9

"Associated Charities in Cities." Indiana Bulletin of Charities and Correction, June, 1898.

Charities—*Continued.*

——. "The Value of Associated Charities in Small Cities." Henderson, Charles R. Ind. Bulletin of Char. and Correction. June, 1900, p. 10. 10

"Charity Organization and Jesus Christ." Marson, C. L. London, Scientific Press, 1897. 60 pp. 1s. 11

"Charity Organization Societies." pp. 219-225. Ency. Soc. Ref. See 1-3.

"Charity Organization System of To-day." Leppington, C. H. d'E. Econ. R. Jan., 1897. 12

Defense and arraignment of Organized Charities. Gunton's M. April, 1897, 12:397 (June, 1897.)

"Development of Organized Charities." Pullman, J. M. Lend a H. 11:421 (1893.) 13

"District Charity Organization." Brackett, Jeffrey R. Char. R. 7:595 (Sept., 1897.) 14

"Growth and Character of Organized Charity." Schurman, J. G. Char. R. 1:191 (1892.) 15

"Handbook of Charity Organization." Gurteen, S. Humphreys. Buffalo, Published by the author, 1882. 8vo, 254 pp. 16

"Labor Bureaus, Charity Organization and." Hyslop, J. H. Char. R. 4:1 (1894.) 17

"Organization of Charities." Loch, C. S. London, Swan S. & Co., 1892. 106 pp. $1. 18

"Organization of Charities." Buzelle, Geo. B. Char. R. 2:3 (1892); Townbee, H. V. Longm. 21:409 (1893); White, H. C. New Englander 46:206 (1887.) 19

"Organization of Municipal Charities." Char. R. 6:501 (July & Aug., 1897.)

"Organized Charities in Small Cities." Rein, Carrie. Indiana Bulletin of Charities and Correction, Indianapolis, p. 106 (Sept., 1899.) 20

"Organized Charity from the Point of View of a Municipal Officer." Warner, Amos G. Lend a H. 9:403 (1892.) 21

"Social Philosophy of Charity Organization." (Reviews Bosanquet's "Aspects of the Social Problem," see above.) Hobson, J. A. Contemp. Nov., 1896. Reply to the foregoing. Bosanquet, H. and B. Contemp. 71:112 (Jan., 1897.) 22

"Southern Cities, Charity Organization in." Ayres, P. W. Char. R. 4:259 (1895.) 23

"The True Aim of Charity Organization." Lowell, Josephine Shaw. Forum June, 1896. 24

"What a Charity Organization Society can do and what it cannot." Bonaparte, Charles J. Char. R. 1:201 (1892.) 25

"Pauperism: Its Causes and Remedies." Fawcett, Henry. London, Macmillan, 1871. 8vo, 270 pp. 5s. 6d. 26

"Pauperism in Great Cities, its Four Chief Causes." Paine, Robert Treat. Boston, 1894. 42 pp. Also articles by same author, p. 1 International Congress. (See above.) Vol. I. 1893. Lend a H. 12:196 (1894.) 27

"Pauper Problem in America." Booth-Tucker, F. de Latour. Char. R. 6:127 (April, 1897). 28

"Philanthropy and Social Progress." Adams, Henry C. New York, T. Y. Crowell, 1893. 268 pp. $1.50. 29

"Police, Department of, as a Means of Distributing Charity." Campbell, A. F. Open Court 11:333 (June, 1897.) 30

"Politics in Public Institutions of Charity and Correction." Henderson, Charles R. Am. J. Sociol. 4:202 (Sept., 1898.) 31

"Poor in Great Cities: Their Problems and What is Doing to Solve Them." New York, Chas. Scribner's Sons, 1895. 400 pp. $3. (A collection of papers by R. A. Woods, W. T. Elsing, Jacob A. Riis, Walter Besant and others contributed to Scribner's Magazine during the years 1891, '92 and '93.)

"Poorhouses, Location, Construction and Management of." Giles, H. H. Mun. World 7:169 (Aug., 1897.) 32

"Poor Relief in Large Cities." Greenwood,F. Nineteenth Cent. 25:737 (1889.) 33

"Poor Relief Questions, Some." Lubbock, Gertrude. London, John Murray, 1895. 329 pp. $3. Chapter III, p. 194 on "The Provision of Meals at Public Schools." 34

——. "Relief and Care of the Poor in Their Homes." Devine, Edward T. Char. R. 10:119 (May, 1900.) 35

"Problems of Poverty. Industrial Condition of the Poor." Hobson, J. A. Lon-

Charities—*Continued.*

don, Methuen & Co., 1891. 227 pp. $1.25. 36
"Public Aid to Private Charity." Sturgis, F. R. Charities Vol. III, No. 13, p. 2 (Aug. 26, 1899.) 37
——. "Co-operation between Public and Private Poor Relief." Böhmert, Victor and Alex. Johnson. Pp. 114-210 "International Congress, vol. iii, 1893, see 43-99. 38
——. "Public Funds and Charitable Institutions." (Editorial.) Outlook 62:468 (July 1, 1899.)
——. "Public Subsidies to Private Charities." Warner, Amos G. P. 120 "International Congress," vol. iii, 1893, see 43-99. 39
——. "Relation of State, City and Individual to Modern Philanthropic Work." Warner, Amos G. J. H. Univ. Publications, 1889. 5 cts. 40
"Public Outdoor Relief." Devine, Edward T. Char. R. 8:129, 186 (May, June, 1898.) 41
"Reform and Public Charities." Folks, Homer. Outlook, March, 1897. 42
"Registration of Charitable Relief." Morse, Francis R. P. 99 "International Congress," vol. iii, 1893, see 43-99. 43
"Rescuers and Rescued, Experiences among Our City Poor." Wells, J. London, Hodder, 1890. 3s. 6d. 44
"Rich and Poor." Bosanquet, [Mrs.] Bernard. London, Macmillan & Co., 1896. 12mo, 216 pp. $1.50. 45
"Shiftless and Floating City Population." Devine, E. T. Ann. Am. Acad. Pol. Sci. 10:149 (Sept., 1897.) 46
Slums. (See Slums under **Housing.**)
"Smoky Pilgrims." (A study of pauperism and crime in a small town.) Blackmar, Frank W. Am. J. Sociol. 2:485 (Jan., 1897.) 47
"Social Evils and Their Cure." Wines, F. H. Char. R. 6:193 (May, 1897.) 48
"Statistics, A Story of Charity." Labor Bulletin, Mass., No. 12, p. 120 (Oct., 1899.)
"Sympathy and Reason in Charitable Work." Jones, Edward D. Char. R. 6:289 (June, 1897.) 49
"Training of Charity Workers, The." Richmond, Mary E. Char. R. 6:308 (June, 1897.) 50
Tramps. (See Vagrancy below.)
Unemployment. (See under **Unemployment.**)
"Unofficial Government of Cities." (Charity, etc.) Wheeler, Everett P. Atlan. 85:370 (March, 1900.) 51
Vacant City Lots, Cultivation of. (See under **Vacant City Lots.**)
"Vagrancy." Wright, A. O. P. 108 "International Congress," vol. i, 1893, see 43-99. 52
——. "Vagrancy and Public Charities in Foreign Countries." United States Special Consular Report, 1893. 350 pp.

Charleston, S. C.

Description and Statistics of Charleston, S. C. in 1880. Census. See 1-7.
"History of Charleston, S. C." Snowden, Yates. See 1-4c; Census. See 1-7. 53
"Municipal Condition of Charleston, S. C." Ficken, John F. Pp. 188-191, Pro. of the Louisville Conf., 1897. See 6-18d. 53a

"**Charlottenburg, [Germany]**, A Sewerage Pumping Engine at." Engng. News 39:126 (Feb. 24, 1898.)

"**Chateau-Gontier, [France]**, Etudes sur la prostitution dans la ville de, suivie de considerations sur la prostitution en général." Homo, H. Paris, 1872. 8vo, 5 fr. 54

Chatham, [Eng.]

"Chatham, [Eng.]." Mun. J. & London 9:21 (Jan. 21, 1900.)
"Town Hall, Chatham." Surveyor Supp. March 23, 1900.

"**Chatham [N. J.]**, Artesian Wells for the Water Supply of." Tribus, Louis L. Engng. News 42:92 (Aug. 19, 1899). 55

"**Chatham [Ont.]**, Municipal Lighting Plant." Can. Elec. 8:57 (April, 1898).

Chicago, Ill.—*Continued.*

"If Christ came to Chicago." Stead, W. T. Chicago, Laird and Lee, 1894. 472 pp. 50 cts; Reviewed, Goldwin Smith, Contemp. 66:380 (1894). 98

"If the Devil came to Chicago." A plea for the misrepresented by one who knows what it is to be misrepresented himself." Granville, Austyn and W. W. Knott. Chicago, Bow-knot, 1894. 352pp. 99

Italians in Chicago. (See under Foreign Element above.)

Library, Chicago Public. Crissey, Forest. Outlook 57:279 (Oct. 2, 1897); Hrprs. Wkly. 41:934 (Sept. 18, 1897); Dial 23:207 (Oct. 16, 1897). 100

Lighting. "Electric Lighting in Chicago, Municipal." Meyers, W. J. Pol. Sci. Q. 10:87 (1895); Mikkleson, M. A. Ann. Am. Acad. Pol. Sci. 2:715 (1892); Elec. Eng. 26:314 (Sept. 29, 1898). 1

——. "Chicago Gas War." Prog. Age 18:471 (Nov. 1, 1900).

——. "Gas Companies of Chicago." Part III of Ninth Biennial Report of the Bureau of Labor Statistics of Illinois, 1896; Prog. Age 15:59 (Feb. 1, 1897).

——. "Park Lighting Plant, A Public." (Description of the plant in Chicago which supplies current for the chain of parks and boulevards on the West Side.) Heldt, P. M. American Electrician April, 1897. 2

Liquor Problem. "Saloon Question in Chicago." George, John E. New York, Macmillan, Publications of the American Economic Association, April, 1897. 110 pp. 50 cts.; Melendy, R. L. Am. J. Sociol. 6:289 (Nov. 1900), Commons No. 52, p. 1 (Nov. 1900); Moore, E. C. Am. J. Sociol. 3:1 (July, 1897). 3

Logan Monument, Dedication of the." Hrprs. Wkly. 41:777 (Aug. 7, 1897).

"Markets of Chicago." Wakeman, (Mrs.) Antoinette V. H. Chaut. Dec. 1896. 4

Parks, Playgrounds, etc. Bramhall, John T. Leslie's Wkly. 80:337 (1895); Pullen, Clarence. Hrprs. Wkly. 35:413 (1891); Robbins, M. C. Garden & F. 6:403 (1893); Sly, Mary E. Kindergarten M. 10:141 (Nov. 1897); Zueblin, Charles. Am. J. Sociol. 4:145 (Sept. 1898); anon. Am. Arch. 26:185 (1889); Hrprs. Wkly. April 3, 1897. 5

——. "Public Parks, their effect upon the moral, physical and sanitary conditions of the inhabitants of large cities, with especial reference to Chicago." Rauch. John H. Chicago, S. C. Griggs & Co., 1869. 6

"Pavements of Chicago." Fox, E. A. Engng. News Jan. 10, 1878, p. 14; Engng. Rec. 39:45 (Dec. 17, 1898). 7

"People's Institute and Home Salon, The Chicago." Bramhall, John T. Leslie's Wkly. 80:240 (1895). 8

"Population of Chicago, Mixed." Ridpath, J. C. Chaut. 12:483 (1891). 9

——. "The Wonderful Growth of Chicago." Shumann, Andrew. Lealie's Wkly. 70:58 (1890). 10

Reform Organizations. "Civic Federation of Chicago." Baker, R. S. Outlook 52:132 (1896); Small, A. W. Am. J. Sociol. 1:79 (1895). See also p. 474 Proc. Second Natl. Conf., 1895. See 6-18b. 11

——. "Voters' League of Chicago, The." Outlook 60:130 (Sept. 10, 1898); Smith, Edwin Burritt. Atlan. 85:834 (June, 1900). 12

Saloons. (See under Liquor Problem above.)

"Sanitary Condition of Chicago." Ingals, E. F. Forum 15:585 (1893). 13

——. "Sanitary Inspection Service." Anon. Sanitary News Oct. 10, 1885; Bemis, E. W. Nation 44:230 (1887). 14

Schools, Public. School System of Chicago. Andrews, E. Benjamin. Educa. 20:201 (Dec. 1899); Milliken, O. J. Am. J. Sociol. 4:289 (Nov. 1898); Rice, J. M. Forum 15:200 (1893). 15

——. "Kindergarten in Chicago School System." Vandewalker, Nina C. Kindergarten M. 9:679 (May, 1897). 16

Settlements. Chicago Commons. Gavit, John P. Our Day Feb. 1897; Hegner, Herman F. Outlook Aug. 31, 1895; anon. Char. R. 4:102 (Dec. 1894). See also monthly issues of "The Commons" published by the Settlement. 17

——. Hull House. Addams, Jane. Forum 14:226 (Oct. 1892), Atlan. 83:163 (Feb. 1899); Brodlique, Eva H. Chautauquan Sept. 1890; Heyer, Edith. Altruist 5:14 (Oct. 1897); Kelley, Florence. New Enook 53:327 (Feb. 22, 1896); anon. Atlan. 218:138 (July 9, 1898); Laves, Kurt. Alg. M. 18:550 (July, 1898), Living Age March 9, 1896; Learned, Henry B. Leigemeine Zeitung, München, Beilage Alice. Char. R. 1:167 (Feb. 1892); Moond a H. 10:318 (May, 1893); Miller, Muzzey, A. L. Arena 16:432 (Aug. 189re, Dorothea. Am. J. Sociol. April, 1897;

Chicago, Ill.—*Continued.*

(March, 1899); Stone, Melville E. Outl6); Stevens, A. P. Self Culture 9:42 77:118 (Jan. 1896). 18

——. "Art Work done by Hull House." Addams, Jane. Forum 19:614 (1895). 19

——. "Social Settlements in Chicago." Embree, Francis Buckley. Gunton's 19:452 (Nov. 1900). 20

Sewerage. "Drainage Channel and Water Way: A History of the Effort to Secure an Effective and Harmless Method for the Disposal of the Sewage of the City of Chicago." (Description, Bibliography.) Brown, G. P. Chicago, Donnelly, 1894. 8vo. 480 pp. 21

——. "Drainage Channel." Baker, M. N. Outlook 64:357 (Feb. 10, 1900); Brown, G. P. · Engng. M. 7:654 (1894); Clement, F. Leslie's Wkly. 80:7 (1895); Colby, B. H. J. Assoc. Engng. Soc. 24:137 (Feb. 1900), Sci. Am. Sup. 49:20356 (May 5, 1900); Guthrie, Ossian. J. Assoc. Eng. Soc. 9:77 (1890); Jordan, Edwin O. Am. R. of Rs. 21:56 (Jan. 1900); Phillips, Hiram. Sanitarian 42:339 (April, 1899); "Quondam." Our Day 18:65 (Feb. 1893); Raddin, Charles S. Overland 35:301 (Oct. 1899); Randolph, Isham. Jour. of W. Soc. of Engs. (Dec. 1897); Skinner, Frank W. Eng. (London) 84:125 (Aug. 6, 1897); Smalley, E. V. Ind. 51:3292 (Dec. 7, 1899); Smith, Joel W. Ind. 49:433 (April 8, 1897); Stewart, J. A. Sci. Am. 82:105 (Feb. 17, 1900); anon. Hrprs. Wkly. 38:827 (1894); Engineering (London) Jan. 1, 1897; Engng. News 38:214 (Sept. 30, 1897); Engng. Rec. 37:407, 39:259 (April 9, April 21, 1898); Engng. News 40:375, 41:127, 41:270, (Dec. 15, 1898, Feb. 23, April 27, 1899); Engng. Rec. 39:489, 40:241 (April 29, Aug. 12, 1899); St. Ry. R. 9:18 (Oct. 18, 1899); Engng. Rec. 40:537, 617 (Nov. 4, Dec. 2, 1899); Engng. News 42:379, 43:22 (Dec. 7, 1899, Jan. 11, 1900); Engng. Rec. 41:26 (Jan. 13, 1900); Surveyor 17:65 (Jan. 26, 1900); Engng. Rec. 41:265 (March 8, 1900); Engng. N. 44:97 (Aug. 9, 1900). 22

——. "Power Development of the Drainage Canal at Joliet." W. Elec'n Sept. 22, 1900.

——. "The Chicago Main Drainage Channel." (Machinery used, methods adopted.) Hill, Charles Shattuck. New York, Engng. News Pub. Co., 1896. 8vo. 129 pp. pl. ill. Cl. $1.50. 23

"Street Cleaning, Toronto and Chicago compared in the matter of" Hooker, George E. R. of Rs. 15:437 (April 1897). 24

"Sweating in Chicago." p. 66 et seq. "Report of the Committee of Manufacturers on Sweating." H. R. Report No. 2309, 1893. John DeWitt Warner, Chairman. 25

——. "Sweating in Chicago." Kelley, Florence Chapter II, p. 27 "Hull House Maps and Papers." 26

Taxation in Chicago. (See under Finance above.)

"Telephone Traffic in Chicago." Elec. R. 31:236 (Nov. 17, 1897).

Track Elevation. (See under Grade Crossings above.)

Transit Facilities. Allen and Humphrey Bills. anon. Railway Age April 23, 1897; St. Ry. J. 13:442 (July, 1897); St. Ry. Rev. 7:428 (July 15, 1897); Elec. World 32:718 (Dec. 31, 1898); City and State 5:406 (Dec. 29, 1898).

——. Cable Traction. Anon. St. Ry. J. p. 213. May. 1890· Ry. World 7:111

Paragraph 18 on pages 48 and 49 should read as follows:

——. Hull House. Addams, Jane. Forum 14:226 (Oct. 1892), Atlan. 83:163 (Feb. 1899); Brodlique, Eva H. Chautauquan Sept. 1890; Heyer, Edith. Altruist 5:14 (Oct. 1897); Kelley, Florence. New Eng. M. 18:550 (July, 1898), Living Age 218:138 (July 9, 1898); Laves, Kurt. Allgemeine Zeitung, München, Beilage March 9, 1896; Learned, Henry B. Lend a H. 10:318 (May, 1893); Miller, Alice. Char. R. 1:167 (Feb. 1892); Moore, Dorothea. Am. J. Sociol. April, 1897; Muzzey, A. L. Arena 16:432 (Aug. 1896); Stevens, A. P. Self Culture 9:42 (March, 1899); Stone, Melville E. Outlook 53:327 (Feb. 22, 1896); anon. Atlan. 77:118 (Jan. 1896). 18

——. "History of the Yerkes System." St. Ry. Rev. 8:273 (April 15, 1898), 9:62 (Jan. 15, 1899).

——. "Questions of Street Railway Policy." Maltbie, Milo Roy. Public Policy 3:347 (Dec. 1, 1900). 28

Chicago, Ill.—*Continued.*

——. "Rapid Transit in Chicago." p. 53 "Rapid Transit in Foreign Cities." Parsons, W. B. New York, 1894. 29

——. "Rapid Transit in Chicago." Speed, John Gilmer. Hrprs. Wkly. 39:377 (1895). 30

——. "Report of Special Committee of the City Council of Chicago on the Street Railway Franchises and Operations, etc." Chicago, City Council, 1898. 8vo. 313 pp. Commented on in Engng. News 40:246 (Oct. 20, 1898).

——. "Report of the Street Railway Commission of the City Council of the City of Chicago." Sikes, George C., Secretary. City Council, Chicago, 1900. 8vo. 136 pp. Paper. 31

——. Street Railways in Chicago, Articles on. Gray, John H. Q. J. E. 12:83 (Oct. 1897); Partridge, Newton A. Ann. Am. Acad. Pol. Sci. 12:305 (Sept. 1898), 13:124 (Jan. 1899); Tanner, John R. City Govt. 6:19 (Jan. 1899); anon. St. Ry. J. Aug. 1894, 13:163 (March, 1897); Elec. Eng. Dec. 2, 1896; St. Ry. R. April 15, 1897, 9:649 (Oct. 15, 1899); Elec. World 32:718 (Dec. 31, 1898); City and State 5:406 (Dec. 29, 1898); Economist 21:69 (Jan. 21, 1899). 32

——. "Street Railways of Chicago and other Cities." Schilling, George A. Chicago, Committee of One Hundred against the Humphrey Bills, 1897. 8vo, 73 pp. 33

Unemployed, The. "The Distress in Chicago." Lane, M. A. Hrprs. Wkly. 38:38 (1894). 34

"Upward Movement in Chicago, The." Fuller, Henry B. Atlan. 80:534 (Oct. 1897). 35

"Water Supply of Chicago." Engng. News May 11, 1893, p. 438; Engng. Rec. 37:538 (May 21, 1898), 39:431 (April 8, 1899).

——. Water Supply Tunnels of Chicago. Atwood, Wm. G. Trans. Assoc. Civ. Engs. of Cornell Univ. June, 1897; anon. Engng. News 44:259 (Oct. 18, 1900), 44:306 (Nov. 8, 1900). 36

"Wide-Open Chicago." Matthews, Franklin. Hrprs. Wkly. 42:88 (Jan. 22, 1898). 37

"Women's Work for Chicago." Addams, Jane. Mun. Aff. 2:502 (Sept. 1898). 38

"**Chichester [Eng.]**, Sewage Disposal at." Fuertes, James H. Engng. Rec. 41:129 (Feb. 10, 1900). 39

Child Problem in Cities. (See under **Charities.**)

"**Chillicothe** Water Works Case, The." Wollman, Henry. Engng. Rec. 37:208 (Feb. 5, 1898), Engng. Rec. 38:530 (Nov. 19, 1898). 40

"**China**, Village Life in." Smith, A. H. New York, F. H. Revell & Co., 1899. 8vo, 360 pp. Cloth, $2. 41

"**Chiswick [Eng.]**, Rising Suburbs." London 6:753 (Sept. 16, 1897).

Christian Endeavor Societies, etc. (See **Church and Municipal Conditions.**)

Church and Municipal Conditions. (See also under **Charities, Reform, Municipal Settlements.**)

"Christian and Civic Economy of Large Towns." Chalmers, Thomas. Henderson, Charles R., editor. New York, Charles Scribner's Sons, 1900. 12 mo, 350 pp. Cl. $1.50. 42

"Christian Endeavor Societies, The Work of, in Behalf of Better Citizenship." Baer, John Willis. p. 517 Proc. Second Natl. Conf. for Good City Govt., 1895. See 6-18b. 43

"Christianization of our American Cities." Buchtel, Henry A. The Christian City 10:763 (Dec. 1898). 44

"Christian Citizenship Movement." Martyn, Carlos. Homiletic, R. 34:397 (Nov. 1897). 45

——. "Christian Citizenship League." Lawson, Albert G. p. 275 Proc. Third Natl. Conf. for Good City Govt., 1896. See 6-18c. 47

——. "The Christian Citizen and the Municipality." Maxon, W. D. Am. M. Civics 7:543 (1895). 46

——. "Power of the Church in City Politics." Coler, Bird S. Outlook 63:634 (Nov. 11, 1899). 48

"Civic Church, The." Stead, W. T. R. of Rs. 8:438 (1893). 49

Church and Municipal Conditions—*Continued.*

"Civic Function of the Church." Bean, L. S. Our Day 13:215 1894). 50

"Darkest England and the Way Out, In." Booth, William. London, Published by the Salvation Army, 1890. 285 pp. 3s. 6d. 51

——. "'Darkest England' on the Wrong Track." Bosanquet, Bernard. London, Swan, S. & Co., 1891. 1s. 2d. 52

——. "Darkest England Social Scheme." (Report of first year's work.) London, Salvation Army Publication Department, 1891. 157 pp. 30 cts. Also same subject by Lowell, J. S. Char. R. 1:219 (1892). 53

——. "General Booth's Panacea." Ashley, W. J. Pol. Sci. Q. 6:537 (1891). 54

——. "General Booth's Scheme and the Municipal Alternative." Roberts, W. H. London, Simpkin, 1891. 6d. 55

——. "General Booth's Social Scheme, Criticism of." Loch, Bosanquet and Dwyer. London, Swan, S. & Co., 1891. 272 pp. $1. 56

——. "Salvation Army as a Social Reformer." Walsh, G. E. Chaut. 17:328 (1893). 57

——. "Social plans of General Booth." Woods, R. A. Andover R. 14:485 (1890). 58

——. "Social Scheme of the Salvation Army, The." Vincent, Geo. E. Am. J. Pol. May, 1893. 59

"Endowment of City Churches." Hamlin, Teunis S. Ind. 49:1225 (Sept. 28, 1897). 60

"Modern Cities and their Religious Problems." Loomis, S. L. New York, Baker and Taylor, 1887. 219 pp. $1. 61

"Modern Methods in Church Work, the Gospel Renaissance." Mead, Whitefield. New York, Dodd, Mead & Co., 1896. 363 pp. Cl. $1.50. 62

"Municipal Reform and the Churches." Strong, Thomas N. Pp. 261-267 Pro. of the Louisville Conf., 1897. See 6-18d. 63

"Our Country: its possible future and its present crisis." Strong, Josiah. New York, Baker & Taylor, 1886. 8vo, 229 pp. 60 cts. 64

"Primary and the Prayer Meeting, The." Clarke, Francis E. City and State, Vol. I, No. 24, p. 5. 65

"Problems of the City in Terms of Theology." Nash, H. S. Open Church 2:282 April, 1898). 66

"Problems of the Modern City Church." Dickinson, C. A. Andover R. Oct. 1889. 67

"Relation of the Church to Municipal Politics." Slicer, Thomas R. Mun. Aff. 4:385 (June, 1900). 68

"Settlements and the Church's Duty." Starr, Ellen Gates. Boston, Church Social Union, 3 Joy St., n. d. pamphlet 10 cts. 69

——. Relation between Churches and Settlements, Articles on. Gavit, John P. Commons 2:3, 3:3 (Feb. May, 1898); Gordon, Clarence. Commons 2:1 (Nov. 1897); McGinley, A. A. Catholic World 71:145, 396 (May, June, 1900). 70

"Social Economics and City Evangelization." Commons, John R. The Christian City 10:767 (Dec. 1898). 71

"Social Reform and the Church." Commons, John R. New York. T. Y. Crowell & Co., 1894. 176 pp. 75 cts. (Municipal Monopolies, pp. 121-151.) 72

"The New Era, or the Coming Kingdom." Strong, Josiah. New York, Baker & Taylor, 1893. 277 pp. 75 cts. 73

"Twentieth Century Churches." Ch. VII, p. 131. "The Twentieth Century City." Strong, Josiah. New York, Baker & Taylor Co., 1898. 16 mo, 181 pp. 50 cts.

"Work in Great Cities, Six Lectures on Pastoral Theology." Ingram, Arthur F. Winnington. London, Gardner, Darton & Co., 1897. 3d edit. 12 mo, 194 pp. 3s. 6d. 74

Cincinnati, O.

City Government, General Works, Unclassified.

Description and Statistics of Cincinnati, O., in 1880. Census. See 1-7.

"Fair Cincinnati." Logan, Charles T. Leslie's Pop. M. Jan. 1898. 75

"Municipal Condition of Cincinnati." Wilby, Chas. B. p. 313 Proc. Second Natl. Conf. for Good City Govt., 1895. See 6-18b. 76

"Plain Municipal Lessons from Cincinnati." Chaut. 12:383 (1891).

"Art in Cincinnati, Public. Decorations for the Main Entrance of the New City

Cincinnati—*Continued.*

Hall." Hrprs. Wkly. 41:696 (July 10, 1897).

Charities. "Thirty-five Years Among the Poor and the Public Institutions of Cincinnati." Emery, Jos. D. Cincinnati, G. E. Stevens & Co., 1887. $1.25. 77

"Cincinnati Southern Railway, a Study in Municipal Activity, The." Hollander, J. H. J. H. Univ. Studies XII, 1 and 2. 50 cts. 77a

"Garbage Utilization at Cincinnati." Engng. News Oct. 8, 1896; Hermann, August. Engng. Rec. 40:465 (Oct. 14, 1899); Mun. Engng. 17:333 (Dec. 1899); Engng. News 43:271 (April 26, 1900). 78

"Gas Works, Franchise." May, Max B. Ann. Am. Acad. Pol. Sci. 14:141 (July, 1899). 79

History to 1880. Census. See 1-7.

"Indebtedness, Bonded." May, Max B. Ann. Am. Acad. Pol. Sci. 14:262 (Sept. 1899). 80

Paving. "Maintenance of Asphalt Streets in Cincinnati, Ohio." Harper, J. M. Engng. Rec. 40:627 (Dec. 2, 1899). 81

"Schools of Cincinnati, Public." Rice, J. M. Forum 14:293 (1892). 82

Settlement, Cincinnati Social. Commons, May, 1897.

"Sewer Repairs, Cincinnati, Ohio." Harper, J. W. Engng. Rec. 39:447 (April 15, 1899). 83

"Street Railway Company, The Chester Park Shops of the Cincinnati." St. Ry. Jour. 14:77 (Feb. 1898).

Water Supply. "Water Supply and Typhoid Fever, Cincinnati." Sanitarian 36:404 (1896); Engng. Rec. 33:561 (Nov. 27, 1897); Fire & W. 23:13 (Jan. 8, 1898); Engng. News 41:159 (March 9, 1899); Engng. Rec. 39:323 (March 11, 1899); City Govt. 6:68 (April, 1899); Fire & W. 25:135 (April 29, 1899).

Cinque Ports. (See under **United Kingdom.**)

"Citizens' Union." (See under **New York.**)

Citizenship, Civic Duty, Etc. (See under **Elections.**)

Civil Service in Cities.

See also Boston, Brooklyn, Chicago, New York, San Francisco, United Kingdom, United States.

"Appointment of Municipal Officers." Press, John. Cambridge (Mass.) Civil Service Reform Association Publications, 1884. 84

"Bibliography of Civil Service Reform and related topics." (pp. 5-7 bibliography on the Civil Service in Municipal Government, the remainder of the bibliography being devoted to references on the other phases of the subject.) New York, Published for the Women's Auxiliary to the Civil Service Reform Association, 1900. Pamphlet. 14 pp. 10 cts.

"Citizenship and the Civil Service." Walbridge, C. P. Proc. Natl. Civil Service Reform League, 1894. p. 68. 85

"Civil Service in Great Britain: a History of Abuses and Reforms, and their bearing upon American Politics." Eaton, Dorman B. New York, Harpers, 1877. $2.50 86

"Civil Service in Municipal Government." Freud, J. Richard. Outpost 1:3 (Aug. 5 and 12, 1899); Richardson, Charles. Good Govt. 13:65 (1893); Webb, Sidney. Mun. J. & London 9:77 (Jan. 26, 1900). 87

Civil Service Reform in American Cities, Articles on. Davis, Horace. Mchts. Assoc. R. p. 2, May, 1897; Eliot, Charles W. Forum 12:153 (1891); Low, Seth. Good Govt. 13:29 (1893); Patterson, C. Stuart. Penn. Mo. 13:295 (1882); Schurz, Carl. Good Govt. 13:93 (1894); Shaw, Albert and Horace Deming. Proc. Natl. Civil Service League, Cincinnati, 1897, p. 120, also published separately by the League, gratis; Wilby, Chas. B. same, 1894, p. 79; anon. Outlook, March, 1897, 88

——. "Civil Service Reform in Cities." Chapter V, p. 85, "Municipal Reform in the United States," by Thomas H. Devlin. New York, Putnam, 1896. 174 pp. 75 cts. 89

——. "Relations of Civil Service Reform to Municipal Reform." Schurz, Carl. p. 123 First Natl. Conf. for Good City Govt., 1894. See 6-18a. 90

——. "Growth of Civil Service Reform in States and Cities." (pp. 521-559, Fifteenth Report of the U. S. Civil Service Commission, 1896-7.) Also printed sepa-

Civil Service in Cities—*Continued.*

rately, in pamphlet form, to be had by addressing Clerk of the Senate Document Room, Washington, D. C.

——. "Civil Service in States and Cities." Shepard, Edward M. Am. J. Soc. Sci. 20:98 (1895). 91

"Competitive Tests and the Civil Service of States and Cities." Shepard, Edward M. New York, Putnams, 1885. (Economic Tracts No. 11.) 25 cts. 92

"Examinations, Civil Service." Bowker, R. R. New York, Society for Political Education, 1886. 45 pp. 15 cts. (National, State and Municipal Examination Papers.) 93

Finance and Civil Service Reform, Orations on. Vol. IV, "American Orations: Studies in American Political History," edited by Albert Johnston and James A. Woodburn. New York, G. P. Putnam's Sons, 1897. $1.25. 94

"Influence of the Spoils Idea upon the Government of American Cities." Welsh, Herbert. New York, National Civil Service Reform League, 1894. Gratis. 95

"Merit System of Civil Service." Pp. 469-473 in "The City for the People or the Municipalization of the City Government and of Local Franchises." Parsons, Frank. Philadelphia, C. F. Taylor, 1900. 8vo, 597 pp. Cloth, $1. 96

——. "Merit and Party Systems." (Editorial) Ind. 50:53 (Jan. 13, 1898).

"Municipal Misgovernment, One Remedy for." (Civil Service Reform). Eliot, Charles W. Forum 12:153 (1891). 97

"Poison in the Civil Service." Ralph, Julian. Hrprs. Wkly. 40:131 (1896). 98

"Police and Fire Department Civil Service of Cities." New York Civil Service Reform Association, 1884. Report made at the request of the Civil Service Commission of the State. 24 pp.

"Prize Essays on Municipal Reform." Pease, T. H., John Prentiss and Henry T. Terry. Published by the Cambridge, Mass. Civil Service Reform Association, 1884. 74 pp. 99

"Proceedings at the Annual Meeting of the National Civil Service Reform League." New York, Published annually by the league, 1882-1900. 8 cts. per number.

"Theory and Practice of Getting Jobs." Alvord, J. W. Public Policy 2:282 (May 5, 1900). 100

Working Men and Civil Service. "Civil Service Reform in its Bearings upon the Interests of Workingmen." Welsh, Herbert. P. 116, Proc. Natl. Civil Service Reform League, Washington, 1895. 1

——. "The Application of the Civil Service Rules to Public Laborers." Russell, Charles Theodore, Jr. P. 49, Proc. Natl. Civil Service Reform League, Buffalo, 1892. 2

——. (See also under **Labor and its Relation** to the **Municipality.**)

Cleveland, O.

City Government, General Works, Unclassified.

"Civic Problems of Greater Cleveland, A Few." (I. An Extensive Dock System. II. A New Union Railway Station. III. Sewage Disposal. IV. A Cleveland "Court of Honor." V. The Mediterranean and Great Lakes Compared.) Bolton, C. E. Cleveland, O., 1897. Pamphlet. 40 pp. 3

Description and Statistics of Cleveland, O. in 1880. Census. See 1-7.

"Federal Plan of Municipal Government as Illustrated by the City of Cleveland." Avery, Elroy M. South Bethlehem, Pa., 1892. 15 pp. Reprinted from the Lehigh Quarterly, June 1892, Vol. 2, No. 3. 4

——. "Cleveland's Federal Plan." Ralph, Julian. Hrprs. Wkly. 39:829 (1895). 5

——. "Municipal Government of Cleveland." Blandin, E. J. p. 112 Proc. Second Natl. Conf. for Good City Govt., 1895. See 6-18b. 6

"Chamber of Commerce, Annual Report of, for 1896." p. 132, "The Business Management of a Great City," by Mayor William L. Strong, of New York. p. 142, "Civic Pride," by Mayor Robert S. McKisson, of Cleveland. 7

Garbage Disposal. Mun. J. & Eng. 9:157 (Dec. 1900); Engng. N. 43:358 (May, 31, 1900).

"History of Cleveland, Chapter on the." Burton, C. M. Detroit, Burton, 1895. 31 pp. 8

——. History of Cleveland to 1880. Census. See 1-7.

Cleveland, O.—*Continued.*

"Library of Cleveland, Public." Brett, W. H. Mag. Western His. 7:55 (1888). 9

"Municipal Service, Cleveland's." Cleveland Leader, Jan. 22, 1896.

"Parks of Cleveland, Ohio, The." Park & Cem. 10:5 (March, 1900).

"Sanitary Needs of Cleveland, O." Engng. Rec. Feb. 15, 1896.

"Settlement, Goodrich Social." Cadwallader, Starr. Commons 2:1 (Oct. 1897); anon. Ann. Am. Acad. Pol. Sci. 11:134 (Jan. 1898). 10

Sewage. "Bacterial Sewage Disposal at East Cleveland." Engng. Rec. 41:128 (Feb. 10, 1900).

Street Paving. "Pavements of Cleveland." Richie, James. J. Assoc. Engng. Soc. March, 1895; Sargent, J. H. J. Assoc. Engng. Soc. Sept. 1888. 11

"Street Railway Problem in Cleveland." Hopkins, William Rowland. Am. Econ. Assoc. Economic Studies Vol. I, Nos. 5 and 6, 1896. 376 pp. 75 cts. 12

——. "Street Railway Franchises, Cleveland." Fanning, M. J. Ann. Am. Acad. Pol. Sci. 14:380 (Nov. 1899), 15:121 (Jan. 1900); Short, S. H. St. Ry. J. 14:43 (Jan. 1898); Wilcox, Delos F. Ann. Am. Acad. Pol. Sci. 13:127 (Jan. 1899). 13

"Suburban Village, A Model." Bolton, C. E. Am. Mo. R. of Rs. 20:573 (Nov. 1899). 13a

"Telephone Co., The New Exchange of the Cleveland." Elec. Eng. 25:175 (Feb. 17, 1898).

"Water Works, of Cleveland, O. The New Lake Tunnel and Cribs for the." Schulz, C. F. Engng. Rec. May 22, 1897; Engng. Rec. 37:492 (May 7, 1898). 14

Clichy, France, Housing. "Habitations Ouvrières Cité Jouffroy-Renault à Clichy." R. Gen. de l'Arch. p. 153, 1897.

Clinton, Mass.

Sewage. "The Clinton, Mass., Sewage Disposal System." Engng. Rec. 39:136 (Jan. 14, 1899); Engng. Rec. 41:196 (March 3, 1900).

Coal Yards, Municipal. (See also under **Municipal Control, Municipal Ownership.)**

"Municipal Fuel Bill Pronounced Unconstitutional." New Nation 2:310, 328 (1892).

"Municipal Fuel Yards." Parsons, Frank. New Nation 2:325 (1892); anon. New Nation 1:421 (1891); To-day 3:453 (1891). 15

"Opinions of the Justices of the Supreme Judicial Court as to whether cities and towns have right to establish and maintain municipal coal yards." (Massachusetts.) Doc. 519. 1892. 13 pp.

"**Cohoes [N. Y.],** The Sewerage of." Engng. Rec. 37:533 (May 21, 1898).

Colchester, Eng.

"Colchester's New Town Hall." Surveyor Supp. Jan. 12, 1900.

History. "A Town with a Past." Benham, Charles E. Mun. J. & London 8:1379 (Dec. 29, 1899). 16

——. "Colchester." (History.) Cutts, E. L. London, Longmans, 1888. Historic Towns Series. 8vo. 3s. 6d. (For other references on the history of Colchester see p. 193 Gross' Bibliography of British Municipal History.) 17

"**Colne [Eng.],** The Slums." Mun. J. & London 8:1251 (Nov. 17, 1899).

Cologne, Ger.

Buildings. "Köln und seine Bauten." Köln, 1888.

Improvement of Cologne. "Die Stadterweiterung von Köln." Stübben, J. Wochbl. f. Arch. u. Ing., pp. 25, 41, 1879. 18

Library of Cologne, The Town. Algermisen, J. L. Zeitschrift für Bücherfreunde (Jan. 1899). 19

Sewage. The Purification of Sewerage at Cologne. Geshundheits-Ing. Nov. 15, 1897.

"**Colombo,** Municipal Lighting." Ind. Engng. July 16, 1898.

"**Colorado Springs** Water Works." Lakes, Arthur. Engng. M. 10:273 (1895). 20

Columbus, Ga.

"Electrical Equipment of a Southern City, The." Boileau, W. E. Elec. World 30:275 (Sept. 4, 1897). 21

Columbus, O.

"City of Columbus, The." City Govt. 3:81 (Sept. 1897).

"Condition of Columbus, O., Municipal." Williams, D. E. p. 323 Proc. Second Natl. Conf. for Good City Govt., 1895. See 6-18b. 22

Council. "Dr. Gladden's Election." Outlook 64:855 (April 14, 1900).

Description and statistics of Columbus, O. in 1880. Census. See 1-7.

"Garbage Reduction at Columbus, Ohio." Engng. N. 44:47 (July 19, 1900).

History of Columbus to 1880. Census. See 1-7.

"Lighting at Columbus, Electric." Leitsch, W. C. Municipality 1:32 (April, 1900). 23

Municipal Control. "Franchise Discussion in Columbus, Ohio." St. Ry. J. 16:1224 (Dec. 29, 1900).

Street Railways. "Railway Company, Operating Methods of the Columbus." St. Ry. J. 16:789 (Sept. 1, 1900).

"Water Supply of Columbus, O., Proposed Storage Reservoir and Infiltration Conduit for the." Engng. News 38:346 (Nov. 25, 1897); Griggs, Julian. Engng. Rec. 40:9 (June 3, 1899); Engng. News 42:8 (July 6, 1899). 24

Compulsory Education. (See under **Schools.**)

Compulsory Voting. (See under **Elections.**)

Concerts, Municipal. "Report on Outdoor Concerts." Drohan, John. City. Rec. 1:546 (Sept. 29, 1898). 25

"**Concord [Mass.]**, Sewage Pumping and Electric Station, The." Engng. Rec. 42:320 (Oct. 6, 1900).

Concord, N. H.

History. "Concord, History and Life." Cooke, George Willis. New Eng. M. 18:425 (June, 1898). 26

——. "History of Concord, N. H." Sanborn, Frank B. See 1-4a. 27

Lighting, etc. "Concord Municipal Lighting and Sewerage Plant." Am. Gas Light J. 72:124 (Jan. 22, 1900).

"Water Department of Concord." Fire and Water March 13, 1897.

Conduits.

See also Berlin, Boston, Chicago, Glasgow, London, New York, Paris, St. Louis.

"Advantages of Tunnels in Large Cities." Parsons, William Barclay. Engng. Rec. 40:672 (Dec. 16, 1899). 28

"Architecture, Subway." Arch. & B. M. 1:185 (March, 1900).

City Subways for Pipes and Wires in Cities. Bryant, Henry F. Cosmopol. 26:439 (Feb. 1899); anon. Engng. News 43:173 (March 15, 1900); Engng. Rec. 40:14 (June 3, 1899); same 41:585, 601 (June 23, 1900). 29

"The Systematic Location of Gas Mains and other Pipes in the Streets." McDonald, Donald. Prog. Age 18:260 (June 15, 1900); anon. Engng. News 38:264 (Oct. 21, 1897). 30

"Underground Conduits for Telephone, Telegraph and Electric Light Wires." United States Consular Report No. 139, 1892. pp. 739-810.

"Underground vs. Overhead Wires." Webb, Herbert L. Engng. M. 1:677 (1891). 31

Congestion of Population in Cities. (See under **Population.**)

Connecticut.

"Ballot Law, Connecticut." Harrison, L. New Englander 51:401 (1890). 32

"Beginnings of Connecticut Towns." Andrews, Charles M. Ann. Am. Acad. Pol. Sci. 1:165 (1890). 33

"Sewage Disposal in Connecticut." (Report of the Sewage Commission.) Hart-

Connecticut—*Continued.*

ford, Conn., 1899. 8vo, 88 pp. Commented on in Engng. News 41:107 (Feb. 16, 1899), Engng. Rec. 39:249 (Feb. 18, 1899).

Transit Facilities. "Electric Railways in Central Connecticut." St. Ry. J. 15:430 (July, 1899).

——. "Operating Expenses of Connecticut Railways." St. Ry. R. 8:81 (Feb. 15, 1898).

Constantinople.

"Constantinople." (Historical and descriptive.) Grosvenor, Edwin A. (With an Introduction by Lew Wallace.) Boston, Roberts Bros., 1895. 2 vols. 8vo, 413, 411 pp. Cl. $6. 34

"Constantinople." Hutton, William Holden. New York, The Macmillan Co., 1900. 8vo, 341 pp. Cl. $1.50. 35

"Constantinople as an Historic City." Ch. XI, pp. 309-340 in Frederic Harrison's "The Meaning of History." New York, Macmillan, 1894. 8vo, 482 pp. $2.25. 36

"Constantinople, The Story of the Old Capital of the Empire." Hutton, William Holden. New York, Macmillan (Mediæval Town Series), 1901. 16mo, 341 pp. $1.50. 37

Street Life in Constantinople. Gottwald, J. Deutscher Hausschatz Heft 5, 1897. 38

"Turkish Syphons at Constantinople." Wegmann, Edward. Engng. Rec. 40:549 (Nov. 11, 1899). 39

Consular Reports of the United States.

The following list indicates the more important volumes in the Consular Reports of the United States which have a more or less direct reference to municipal affairs in foreign countries. The shorter reports have been indexed under each city and country.

"Fire and Building Regulations in Foreign Countries." U. S. Spl. Consular Reports Vol. VIII, 1892. 543 pp.

"Gas in Foreign Countries." Special Consular Report. Washington, Government Printing Office, 1891. 260 pp.

"Local Transportation in Foreign Cities." Cons. Rep. No. 139, 1892. pp. 597-738.

"Public Works of German Municipalities." Washburn, Albert H. pp. 202-214 U. S. Consular Reports, No. 149, Feb. 1893. 40

"School Gardens in Europe." U. S. Spl. Consular Reports, Vol. XX, pt. II, pp. 163-224. Washington, Government Printing Office, 1900.

"Sewerage in Foreign Cities." U. S. Consular Reports No. 173, 1895, pp. 145-245. (Systems of Amsterdam, Berlin, Bordeaux, Bradford, Bremen, Brussels, Cardiff, Constantinople, Copenhagen, Dublin, Edinburgh, Florence, Frankfort, Glasgow, Hamburg, Leeds, Leith, Liverpool, Lyons, Manchester, Marseilles, Munich, Rome, Rotterdam, St. Petersburg, Stettin, Stockholm, Trieste, and Vienna.) 40a

——. "Disposal of Sewage and Garbage in Foreign Countries." U. S. Special Consular Reports Vol. XVII, pp. 13-221, 1899. (Systems of Amsterdam, Antwerp, Berlin, Bradford, Brussels, Canadian Towns, Ghent, Glasgow, Gothenburg, London, Lyons, Manchester, Nice, Nottingham, Nuremberg, Rotterdam, St. Gall, Trieste, Zürich and other cities.) 40b

"Streets and Highways in Foreign Countries." Special Consular Report, 1891. 592 pp.

"Underground Conduits for Telephone, Telegraph and Electric Light Wires." U. S. Consular Report No. 139, 1892. pp. 739-810.

"Vagrancy and Public Charities in Foreign Countries." U. S. Special Consular Report, 1893. 350 pp.

Copenhagen, Denmark.

Housing Workingmen's Building Societies in the Suburbs of Copenhagen. Westergaard, Niels. Ar. Soz. Gesetz. Stat. 14:716 (Dec. 1899). 41

"Sewage Disposal of Copenhagen." Kirk, Robert J. See 40a above. 42

——. "The Place of the Council and of the Mayor in the Organization of Munici-

"Small Gardens for Tenement Dwellers in Copenhagen." Loeb, Morris. Char. R. 10:445 (Dec. 1900). 43

"Tramways, Fares and Earnings of the Copenhagen." Faber-Madsen, V. St. Ry. Jour. 14:425 (Aug. 1898). 44

Cork, Ireland.

Electric Tramways, Cork. St. Ry. J. 14:6 (Jan. 1898), 15:35 (Jan. 1899); Ry. World 7:108 (April 7, 1898), 8:23 (Jan. 5, 1899); St. Ry. R. 9:5 (Jan. 15, 1899).

Corporations, Municipal. (See under **Government, General References and Unclassified.**) p. 1.

Councils and Boards of Aldermen. (See also **Mayor.**)

See also Berlin, France, Germany, London, New York, Philadelphia.

"Aldermen and their Appointment." Godkin, E. L. Nation 38:158 (1884). 45

——. "Aldermen and Municipal Corporations." (England.) Spectator 58:1398 (1885).

Council Committees. "Boards, Single-Headed Commissions or Council Committees." Evans, F. V. City Govt. 5:71 (Aug. 1898); Prog. Age 16:405 (Sept. 1, 1898); Young, W. E. Prog. Age 16:404 (Sept. 1, 1898). 46

Council Government vs. Mayor Government. (Favors council government.) Durand, E. Dana. Pol. Sci. Q. 15:426, 675, (1900). 47

——. "Mayor vs. Council: The Twenty-seventh Annual Joint Debate of the University of Wisconsin." Madison, George B. Nelson, 1897. 103 pp. 50 cts.

——. "Outgrown City Government." (Against the council.) Parton, James. Forum 2:539 (1887). 48

——. "Problem of City Government. Where to Locate Municipal Powers, The Council and the Mayor." Mchts. Assoc. Rev. p. 5, June, 1897.
pal Government—The Necessity of Distinguishing Legislation from Administration." Goodnow, Frank J. Pp. 74-88 in "A Municipal Program." New York, The Macmillan Co., 1900. 8vo, 246 pp. Cl. $1. Also in Proc. Indianapolis Conf. of the National Municipal League p. 71, 1898. See 6-18e. 49

Evolution of Council. See Stubb's "English Constitutional History." Vol. I, p. 419. Oxford, Clarendon, 1874-8. 50

"Legislature in City and State, 1797-1897, The." Deming, Horace E. Pp. 89-102 Proc. of the Louisville Conf. for Good City Government, 1897. See 6-18d. 51

——. "Decline of Legislatures." Godkin, E. L. Atlan. 80:35 (July, 1897). 52

"Organization of Town Councils." Williams, Sylvester G. Public Improvements 2:174 (Feb. 15, 1900). 53

"Reform of our Municipal Councils." Williams, Henry W. p. 236 Proc. Third Natl. Conf. for Good City Govt., 1896. See 6-18c. 54

"Representative Robbery." City and State, Vol. I, No. 21, p. 5 (1895).

Salary of Council Members. "Should Municipal Legislators receive a Salary." Pryor, James W. p. 263 Proc. Third Natl. Conf. for Good City Govt., 1896. See 6-18c. 55

"Single or a Double Council." Butler, John A. p. 252 Proc. Third Natl. Conf. for Good City Govt., 1896. See 6-18c. 56

——. "Shall we have One or Two Legislative Chambers." Capen, Samuel B. Proc. Third Natl. Conf. for Good City Govt., 1896. See 6-18c. 57

"Work of City Councils, The." Bird, Albert. Citizen 1:206 (1895). 58

Coventry, Eng.

"Crematory, Coventry's Municipal." City Govt. 7:24 (July, 1899).

Electric Tramways of Coventry. Ty. & Ry. World 8:327 (Sept. 7, 1899); St. Ry. R. 10:137 (March 15, 1900); Elec. W. &E. 35:504 (April 7, 1900).

History. "Life in an Old English Town: A History of Coventry, from the Earliest Times. Compiled from Official Records." Harris, Mary Dormer. New York, Macmillan Co., 1898, 8vo, 307 pp. Cl. 17s. 6d. 59

Crefeld [Ger.] "Die Wohnungsverhältnisse der arbeitenden Klassen in der Stadt Crefeld." Seyffardt, L. F. pp. 153-156, Hft. 31, Schr. d. Ver. f. Socialpolitik. 60

Cremation. (See under **Burial in Cities.**)

Crime, Criminals in Cities. (See under **Police.**)

Croker, Richard.

"Mr. Richard Croker and Greater New York." Appendix to "Satan's Invisible World Displayed," by W. T. Stead. New York, R. F. Fenno & Co., 1897. 12mo, 300 pp. $1.25. Also article by same writer, Mun. Rec. & Ad. Vol. I, No. 19, p. 6 (Oct. 16, 1897). (See also **New York.**) 60a

"Secret of Croker's Influence, The." Gunton's 17:161 (Sept. 1899).

"What Croker Is and Means." Hrprs. Weekly 43:832 (Aug. 26, 1899).

Cronenberg [Ger.], Housing. "Krupp's Arbeiter-Colonie, Cronenberg." Haarmann's Zeitsch. f. Bauhdw. p. 171, 1877.

Crossness [Eng.], (See under London).

Crowding of Cities. (See under **Population.**)

Croydon, Eng.

"Electric Traction for Croydon." Monkhouse. Ty. & Ry. World 8:486 (Dec. 7, 1899). 61

"Street Lighting by Electric Lamps—with Special Reference to the Systems in Use at Croydon, England." Minshall, F. H. Am. Gas Light J. 73:968 (Dec. 17, 1900). 62

Cuba.

A Brief Study of Cuban Municipal Government. "Breve Estudio sobre * * los Asuntos Municipales en la Isla de Cuba * * ." Carrera y Justiz, Francisco. Habana, Los Niños Huerfanos, 1900. 12mo, 86 pp. 63

Cultivation of Vacant City Lots (Pingree Plan.) See under **Vacant City Lots.)**

"**Cumberland [Md.],** The Pollution of the Water Supply of, by a Paper Pulp Mill." Hungerford, Churchill. Engng. News 39:90 (Feb. 10, 1898). 64

Cumulative Voting. (See under **Proportional Representation.)**

"**Curfew for City Children.**" Townsend, (Mrs.) John D. No. Am. 163:725 (1896). (See also Child Problem in Cities under **Charities.)** 65

Danville, Ill.

"Water Works Decision, The Reversal of the Danville." Engng. Rec. 39:417 (April 8, 1899).

Day Labor and Contract System on Municipal Works. (See under **Labor and Its Relation to the Municipality.)**

Dayton, O.

"Electrolysis of Cast Iron Water Pipes at Dayton, Ohio." Brown, Harold P. Pro. Am. Soc. Mun. Imp. (5th yr.) Pt. II, p. 215 (Oct. 1898), Elec. Eng. 26:441 (Nov 3, 1898), St. Ry. Rev. 8:817 (Nov. 15, 1898), St. Ry. J. 14:785 (Dec. 1898), Mun. Engng. 16:84 (Feb. 1899); Rowe, Chas. E. Engng. Rec. 38:422 (Oct. 22, 1898). 66

"Street Railways of Dayton, O." St. Ry. Jour. 14:119 (March, 1898).

Death Rate in Cities. (See under **Statistics of Cities,** also under **Population.)**

Debts and Loans, Municipal.(See under **Finance.)**

"**Deerfield [Mass.],** History of." Sheldon, George. See 1-4a. 67

Defences of Cities.

"Defence of Our Great Cities, The." "C. E." Mun. Rec. and Ad. 1:6 (Nov. 20, 1897), 2:3 (Dec. 11, 1897), 2.33 (Dec. 18, 1897), 2:65 (Dec. 25, 1897), 2:97 (Jan. 1, 1898), 2:125 (Jan. 8, 1898), 2:189 (Jan. 22, 1898.)

Denmark, Local and Municipal Government in. Demombynes Vol I., pp. 219-229. See 2-11.

Denver, Col.

City Government, General Works, Unclassified.

"Denver City Government." Cochran, Charles W. City Govt. 2:12 (Jan., 1897.) 68

Description and Statistics of Denver, Col. in 1880. Census. See 1-7.

"Mayor McMurray's Veto of the Opposition Charter for Denver, Col." (Editorial.) Am. Gas Light J. 67:447 (Sept. 20, 1897.)

"Municipal Condition of Denver, Col." Rogers, Platt. p. 424 Proc. Second Natl. Conf. for Good City Govt., 1895. See 6-18b. 69

"Department Store in the West, The. Changes for the better in Denver." Meredith, Ellis. Arena 22:337 (Sept., 1899.) 70

History of Denver to 1880. Census. See 1-7.

Lighting. "The Offer of the Denver Consolidated Gas Company to the City." (Editorial). Am. Gas Light J. 67:449 (Sept. 20, 1897).

"Sewers and Pavements of Denver, Col., Notes on the." Hardesty, W. P. Engng. News 40:295 (Nov. 10, 1898.) 71

"Water Supply of Denver, Col." Engin. News 37:125 (Feb. 25, 1897.)

——. "Sedimentation Tanks with Numerous Circular Overflow Weirs; Denver Union Water Co." Engng. N. 44:322 (Nov. 15, 1900.)

"Women's Work in Denver." Conine, Martha A. B. Mun. Aff. 2:527 (Sept., 1898.) 72

Department Stores in Cities.

See also Boston, Chicago, Denver, New York, Philadelphia.

"Department Store Question, The." Hirsch, Adolph. Business 19:605 (Oct., 1899.) 73

"Two Weeks in Department Stores." MacLean, Annie Marion. Am. J. Sociol. 4:721 (May, 1899.) 74

"**Depew, N. Y.**, The Sewerage System of." Engng. Rec. 38:120 (July 9, 1898.)

"**Derby, [Eng.]** and Ashbourne Electric Railway." Ry. World 6:344 (Nov., 1897.)

Des Moines, Ia.

History, Description and Statistics of Des Moines, Ia., in 1880. Census. See 1-7.

Lighting, Electric. "Taxpayers Protected" Public Policy 2:122 Feb. 24, 1900.)

"Roadside Settlement." Commons, Aug., 1897.

Detroit, Mich.

"City Government in Detroit." Kent, Charles A. Ann. Arbor, Studies in Finance and History, Michigan Univ. Article in Vol. I., No. 6 (Dec. 1895). 25c. 75

Description and Statistics of Detroit, Mich., in 1880. Census. See 1-7.

"Detroit: A Municipal Study." Pingree, Hazen S. Outlook Feb., 1897. 76

"Detroit an Interesting City." Mun. Engng. 15:69 (Aug., 1898.)

Detroit Plan, Pingree Plan. (See under **Vacant City Lots, Cultivation of.**)

"Municipal Condition of Detroit." McLaurin, Donald D. p. 382 Proc. Second Natl. Conf. for Good City Govt., 1895. See 6-18b. 77

Elections. "Working Digest of Registration and Election Laws." Detroit, McCrackan, 1895. 24 pp. 15 cts.

"Garbage Disposal in Detroit." Kempster, Walter. Mun. Engng. 15:159 (Sept., 1898); anon. Engng. Rec. 38:200 (Aug. 6, 1898.) 78

History of Detroit to 1880. Census. See 1-7.

Labor. "Municipal Employment Scheme Proposed for Detroit, Mich." Post, James A. Proc. Nat. Conf. Char. and Cor., held in Toronto, Ont., July 7-14, 1897. 79

Lighting. "Various Gas matters in Detroit and Toledo." Prog. Age 16:477 (Oct. 15, 1898.)

——. Municipal Electric Lighting in Detroit, Articles on. Fairlie, John Archibald. Mun. Aff. 4:606 (Sept., 1900); Fisher, Geo. E. Elec. Eng. 25:64 (Jan. 13,

Detroit, Mich.—*Continued.*

1898); Gonden, H. J. Mun. Ownership 1:9 (June, 1900); Moore, Chas. Am. Econ. Asoc. 2:539 (1888); Starring, Ford. Elec. Eng. 24:377 (Oct. 21, 1897); anon. City Govt. 1:35 (1896), 7:76 (Oct., 1899); Elec. Eng. 24:326, 329, 378 (1897), 25:61, 26:154 (1898); Engng. Rec. 38:221 (Aug. 13, 1898), 40:310 (Sept. 2, 1899); Engng. News 40:152 (Sept. 8, 1898); Public Policy 2:50 (Jan. 27, 1900); Public Improvements 2:152 (Feb. 1, 1900.) 80

"Parks of Detroit, Mich., The." Park & Cem. 9:77 (June, 1899.)

"Public Work, Methods in Detroit." Mun. Engng. 19:324 (Nov. 1900.)

"Telephone Company, The Detroit." Grace, S. P. Elec. Eng. 25:123, 153 (Feb. 3, 1898, March 15, 1898. 81

Transit Facilities. Articles on Detroit's experience with municipal street railways, three-cent fares, etc. Bemis, E. W. Mun. Aff. 3:473 (Sept., 1899); Brown, Thomas W. Am. Law R. 33:853 (Nov., Dec. 1899); Insull, Samuel. Elec. Rev. 35:28 (July 12, 1899); Moore, Chas. J. Q. J. E. 13:453 (July, 1899), 14:121 (Nov., 1899); Van Zandt, A. D. B. City Govt. 1:11 (1896); anon. City Govt. 6:68 (April, 1899); St. Ry. R. 9:224, 363, 452 (April, June, 1899), 10:218 (April, 1900); Public Improvements 1:61 (June 15, 1899); St. Ry. J. 15:447, 477 (July, 1899); Other Side 1:12, 15 (July, 1899); Ann. Am. Acad. Pol. Sci. 14:108 (Sept., 1899.) 82

——. "Experience of Detroit. The Public vs. the Street Car Companies." Boston, Leaflet issued by the Citizen's Committee of Boston, 1897. 83

——. "New Equipment for the Rapid Railway of Detroit." St. Ry. J. 16:119 (Feb. 3, 1900.)

——. "The Interurban Electric Railways around Detroit." St. Ry. J. 15:1 (Jan., 1899.)

"Water Rates, Detroit's Low." City Govt. 7:36 (Aug., 1899.)

(June 29, 1899.)

——. "The Partial Abolition of Water Rates at Detroit." Engng. News 41:416

——. "Typhoid Fever and the Water Supply of Detroit." Williams, Gardner S. Pamphlet reprinted from the Proc. of Sanitary Convention held in Detroit, Dec. 9-15, 1897. 17 pp. 84

——. "The Equity of the Detroit Water Rates." Engng. Rec. 38:272 (Aug. 27, 1898.)

——. "The Record System of the Waterworks Department, Detroit." Engng. Rec. 37:230 (Feb. 12, 1898.)

Devonport, Eng.

"Municipal Devonport." Hunt, Fred W. Mun. J. 9:81 (Feb. 2, 1900). 85

"The Progress of Devonport." Hunt, Fred W. Mun. J. 9:103 (Feb. 9, 1900.)

Dijon, France.

"La Municipalité de Dijon." Marpaux, A. Mouvement Soc. 2:385 (April 1, 1900), 2:162 (April 15, 1900.) 86

Socialism, Municipal. "L'Oeuvre des Municipalités Socialistes, Dijon." Marpaux, A. Le Mouvement Socialiste, April 1, 1900. 87

Direct Employment. (See **Day Labor and Contract System.**)

Direct Legislation. (See also under **Home Rule for Cities.**)

See also Alameda (Cal.), Australia, Belgium, Brookline, New England, New Orleans, New Zealand, San Francisco, Switzerland, United States, Victoria (Aus.)

"Arguments and Authorities for Direct Legislation or the Initiative and the Referendum." Dir. Leg. Rec. Vol. VII., No. 4 (Nov., 1900.)

"Direct Legislation." Pp. 255-386 in "The City for the People or the Municipalization of the City Government and of Local Franchises." Parsons, Frank. Philadelphia, C. F. Taylor, 1900. 8vo, 597 pp. Cloth $1.

"Direct Legislation in Switzerland and America." Commons, J. R. Arena 22:725 (Dec., 1899.) 88

"Direct Legislation, etc." (An extensive collection of arguments and digests of literature on the subject of direct legislation.) Washington, 1898. Senate Document No. 340, 55th Congress, 2d Session. 327 pp.

"Direct Legislation by the Citizenship through the Initiative and Referendum."

Direct Legislation.—*Continued.*

Sullivan, J. W. Ruskin, Tenn., The Coming Nation Press, 1896, 4th ed. 120 pp. Paper 10 cts. 88a

"Direct Legislation by the People." Cree, Nathan. Chicago, A. C. McClurg & Co., 1892. 194 pp. 75 cts. 89

"Direct Legislation Record." Eltweed Pomeroy, Editor. Published monthly at Newark, N. J. Devoted to advocacy of Direct Legislation. 90

"Individualistic Argument for Direct Legislation, The." Pomeroy, Eltweed. New Time 1:288 (Nov., 1897.) 91

"Poll of the People." (Referendum—General). Strachy, J. St. Loe. Cosmopolis 6:48 (April, 1897.) 92

Referendum. Pp. 273-274. Vol. III. Palgrave. See 1-2. 93

"Referendum Communal, Le." Sizeranne, Robert de la. Paris, Armand, Colin et Cie., 1893. 86 pp. 1 fr. 94

Referendum and Initiative, The. Pp. 1178-1181. Encyc. Soc. Ref. See 1-3.

"Social Argument for Direct Legislation, The." Pomeroy, Eltweed. New Time 1:206 (Oct., 1897.) 95

"Swiss Solutions for American Problems." McCrackan, W. D. New Eng. M. n. s. 11:448 (1894.) 96

"The Doorway of Reforms." (Direct Legislation.) Pomeroy, Eltweed. Arena 17:711 (April, 1897.) 97

"The Problem of the Cities." (Direct Legislation.) Pomeroy, Eltweed. Am. Fed. 1895. Reprinted, pp. 187. Senate Document on Direct Legislation. See above. 98

"The Referendum in America together with some chapters on the history of the initiative and other phases of popular government in the United States." (Local referendum Ch. IX. et seq.) Oberholtzer, Ellis P. New York, Scribners, 1900. 8vo, 430 pp. $2. An earlier work by the same author on the same subject appeared in the publications of the University of Pennsylvania, Vol. IV., No. 12, 1893. 225 pp. $1.50. 99

Direct Nominations. (See under **Elections.**)

Dispensaries. (See under **Charities.**)

"**Dolgeville, N. Y.**, Electric Light and Power Plant, The." Elec. Eng. 25:279 (March 17, 1898.)

"**Dortmund [Ger.]**, Die Arbeiterwohnungsfrage in." Arnecke. pp. 157-186 Hft. 31, Schr. d. Ver. f. Socialpolitik. 100

"**Douglas, Isle of Man,** Municipal Works in." Prescott, A. Ernest. Surveyor, Supp. Aug. 31, 1900. 1

Dover [Eng.]

Municipal Tramways. Carden, Edward. Ty. and Ry. World 9:19 (Jan. 11, 1900); Stilgoe, Henry E. Elec. Eng. (Lond.) May 7, 1897; anon. Elec. World 30:326 (Sept. 18, 1897); Mun. Eng. 17:30 (July, 1899.) 2

Dresden, Saxony.

Buildings. "Die Bauten von Dresden." Hrsg. v. d. Sächs. Ing. u. Arch. Ver. und der Dresdener Arch. Ver. Dresden, Meinhold u. Söhne, 1878.

"Dresden, Saxony, A Case of Good City Government." Peabody, F. G. Forum 13:53 (1892.) 3

"People's Club, Volkswohl, of Dresden; Its Evening Entertainments and Homes for the People." Böhmert, Victor. P. 228 "International Congress," vol. iii, 1893, see 43-99. 4

"Sewerage of Dresden, Germany." Fuertes, James H. Engng. Rec. 36:514 (Nov. 13, 1897.) 5

Statistics. "Jahresbericht des statistischen Amtes der Stadt Dresden." Dresden, appears annually, first edition, 1894. Also "Mitteilungen d. stat. Amtes d. Stadt Dresden," appearing irregularly since 1891. The 9th Heft (June, 1899) contains a bibliography of the city's statistical publications. Beginning in June, 1900, the city is publishing "Statistisches Jahrbuch für die Stadt Dresden." Erster Jahrgang, 1899, mit einer Chronik für 1899. Hrsg. v. Stat. Amt. 8vo, 127 pp.

Dresden, Saxony.—*Continued.*

Street Cleaning in Dresden. "Die Strassenreinigung Dresdens." Gesund. Ing. 23:107 (April 15, 1900.)

Water Supply. The New Water Works at Dresden. "Das Neue Dresdener Wasserwerk." Vacherot, Chief Engineer. Zeitschr. d. ver. Deutscher Ing. July 1, 1899; Engng. News 42:154 (Sept. 7, 1899); Fuertes, James H. Engng. Rec. 40:722 (Dec. 30, 1899.) 6

Dublin.

"Greater Dublin." Mun. J. & London 8:517 (April 28, 1899.)

History. For bibliography of municipal history of Dublin. See p. 211 Gross' Bibliography of British Municipal History.

Housing of the Laboring Classes. Cameron, Chas. A. Arch (London) Supplement, p. 21, Aug. 26, 1898; Russell, T. W. Mun. J. 9:38 (Jan. 12, 1900); anon. Mun. J. & London 8:952 (Aug. 25, 1899). 7

——. "The Homes of the Working Classes in Dublin." Spencer, Edward. Paper read Oct. 1, 1884, before Congress of Sanitary Institute of Great Britain. Vol. VI. Transactions of Institute. Separate paper 24 pp. 8

Lighting. "The Supply of Water Gas in Dublin." Reynolds, J. Emerson. J. Gas Light 75:1124 (May 1, 1900.) 9

——. "Electric Lighting in Dublin." Wilbour, Joshua. Cons. Rep. 62:319 (March, 1900); anon. St. Ry. Rev. 8:160 (March 15, 1898.) 10

"Sewage Disposal in Dublin." Ashby, Newton B. Cons. Rep. 47:194 (1895). 11

Statistics. "Observations upon the Dublin Bills of Mortality, 1681, and the State of that City, Etc." Pp. 479-491, 493-498, Vol. II, "Economic Writing of Sir William Petty, edited by Charles H. Hull, Cambridge University Press, 1899. 12

Transit Facilities. Electric Tramways. Bridge, Albert H. Elec. World 30:758 (Dec. 25, 1897); anon. St. Ry. J. 14:4, 203 (Jan., April, 1898); Ry. World 7:264 (Aug. 4, 1898), 8:165 (May 11, 1899.) 13

——. "Electric Traction in Dublin. The Tramway to Clontarf." Ry. World 7:1 (Jan., 1898.)

——. "The Ringsend Power Plant of the Dublin United Tramways Company at Dublin." Shaw, A. C. St. Ry. J. 16:421 (May 5, 1900.) 14

"**Dubuque [Ia.]** of To-day, the Key City; Historical, Descriptive and Biographical, Commercial and Industrial." 1897. 159 pp.

Duluth.

Duluth. In article "Capitals of the Northwest." Ralph, Julian. Harper 84:576 (1892.) 15

"The Municipal Water Works of the City of Duluth, Minn." Patton, W. B. Engng. News 39:282 (May 5, 1898.) 16

Dundee.

"Architecture of Our Large Provincial Towns, Dundee." Builder 75:139 (Aug. 13, 1898.)

"History of Dundee." Thomson, James. Dundee, 1874. 8vo. (For other references on the municipal history of Dundee, see p. 217 Gross' Bibliography of British Municipal History.) 17

"Sanitary Progress, Dundee." McGrady, Lord Provost. San. J. 4:345 (Sept., 1897.) 18

Düsseldorf, Germany.

"City of Düsseldorf, The Model." Mun. J. 9:979, 997, 1017 (Dec. 14, 21, 28, 1900.)

Public Comfort Stations. "Die Entwässerung und Reinigung der Städte auf der Gewerbe-Austellung in Düsseldorf: Oeffentliche Bedürfnissanstalten." Stübben, J. Gesund.-Ing. p. 741, 1881. 18a

Dwellings of the Poor. (See under **Housing.**)

"**East Orange, N. J.,** Sewage Works." Bassett, C. Ph. Trans. Am. Soc. Civil Engineers 25:125 (1891.) 19

Edinburgh, Scotland.

"Advertisement Act, Edinburgh." Mun. Aff. 3:719 (Dec., 1899.)

"Architecture of Our Large Provincial Towns, Edinburgh." Builder Jan. 1, 1898.

"Building Problem in Edinburgh." Arch. Oct. 1, 1897.

——. "Building Rules of Edinburgh." Arch. 61:20 (Feb. 3, 1899.)

City Government. "How Edinburgh is Governed." Gulland, John W. Edinburgh, Nelson, 1891. 8vo., 1s. 20

Garbage. "Refuse Disposal in Edinburgh." Engng. Rec. 38:199 (Aug. 6, 1898), 39:525 (May 6, 1899.)

History. "Old and New Edinburgh, its History, its People and its Places." Grant, James. 3 Vols. London, Cassell, 1881. 8vo. 9s. (For other references on the history of Edinburgh see p. 225 Gross' Bibliography of British Municipal History.) 21

——. "Town Life of Edinburgh in the XVIII. Century." Ch. III., p. 81, Vol. I. of H. G. Graham's "Social Life of Scotland in the XVIII. Century." London, Adam & Chas. Black, 1899. 2 Vols. 8vo, 265 and 272 pp. 22

"Housing of the Working Classes Act (1890) in Edinburgh, The." Bruce, William. San. Rec. 22:88 (July 22, 1893.) 23

——. "Housing Problem in Edinburgh." Mun. J. 9:701 (Sept. 7, 1900.)

"Improvement of Edinburgh, Civic. The Work of the Cockburn Asociation" Robinson, Charles Mulford. Mun. Aff. 3:664 (Dec., 1899.) 24

Lighting. "Gas Works at Edinburgh." Fleming, Rufus. Cons. Rep. 59:626 (April, 1899); Herring, W. R. Gas World Jan. 21, 1899. 25

——. "Electric Lighting of Edinburgh." Hewington, Frank A. Elec. Eng. (Lond.) 22:41 (July 8, 1898). 26

——. "Public Lighting in Edinburgh, London and Elsewhere." J. Gas Light 73:297 (Feb. 7, 1899).

"Sewage Disposal, Edinburgh." Macbride, Robt. J. Cons. Rep. 47:198 (1895); Fuertes, James H. Engng. Rec. 41:29 (Jan. 13, 1900). 27

Transit Facilities. Cable Traction in Edinburgh. Colam, W. N. St. Ry. Jour. 14:542 (Sept. 1898); anon. Ry. World 6:323 (Nov, 1897), 7:268 (Aug. 4, 1898); Ty. & Ry. World 9:89, 608 (March, 8, Dec. 6, 1900); Mun. J. 9:401 (May 25, 1900). 28

"Water Works of Edinburgh." Fuertes, James H. Engng. Rec. 38:472 (Oct. 29, 1898). 29

Education. (See under **Schools**).

Elberfeld [Ger.] "Die Wohnungsverhältnisse der ärmeren Bevölkerungsklassen in der Stadt Elberfeld." Ernst. pp. 237-248 Hft. 31, Schr. d. Ver. f. Socialpolitik. 30

Elberfeld System of Poor Relief. (See under **Charities**).

Elections, Ballot Reform in Cities. (See also under **Proportional Representation, Parties and Party Politics**).

See also Baltimore, Belgium, California, Connecticut, England, France, Germany, Italy, Kentucky, Massachusetts, Milwaukee, New York, Pennsylvania, Philadelphia.

"Automatic Ballot, The." Pp. 488-491 in "The City for the People or the Municipalization of the City Government and of Local Franchises." Parsons, Frank. Philadelphia, C. F. Taylor, 1900. 8vo, 597 pp. Cloth, $1. 31

Ballot Laws, Ballot Reform. (See under Elections below).

Caucus System. Reform of the Caucus, Etc. "American Caucus System, its Origin, Purpose and Utility." Lawton, G. W. New York, Putnams, 1885. 107 pp. $1. 32

——. "Caucus Reform." Quincy, Josiah. N. Y. Conference on Practical Reform of Primary Elections, p. 102. Chicago, Hollister, 1898. 8vo, 150 pp. Paper. 33

——. "Caucus Reform, The sine qua non of." Easley, Ralph M. R. of Rs. 16:322 (Sept. 1897). 34

——. "A Word About the Caucus." Dallinger, F. W. New Eng. M. 8:754 (Aug. 1893). 35

——. "Caucus System, The." Whitridge, F. W. New York, Society for Political

Elections, Ballot Reform in Cities.—*Continued.*

Education, 1882. 27 pp. 10 cts. Also in Labor's Cyclopedia Vol. I, p. 357. 36

——. "Facts About the Caucus and the Primary." Green, G. W. No. Am. 137; 257-270 (Sept. 1883). 37

——. "Legalization of Caucuses." Sedgwick, A. G. Nation 8:86 (Feb. 4, 1869). 38

——. "Substitute for the Caucus." Terry, H. T. New Englander 34:734 (Oct. 1875). Reprinted in Cambridge Civil Reform Association's Prize Essays 58-70 (1884). 39

——. "Substitutes for the Caucus." Dana, R. H. Forum 2:491 (Jan. 1887). 40

——. "The Trouble With the Caucus." Means, D. M. New Englander 34:473 (July, 1875). 41

——. (See also under Primary, Primary Reform below).

"Citizen and His City, The." Thacher, John Boyd. Arena 17:847 (May, 1897). 42

——. "Citizen and the City, The." Bird, Albert A. The Citizen 2:100, 130, 167 (1896). 43

——. "The Trustworthy Citizen." Dole, Chas. F. Lend a H. Extra No., Vol. 4, March, 1889. 44

——. "Citizenship and Other Papers." Brinley, Chas. A. Philadelphia, Porter & Coates, 1893. 44 pp. 10 cts. Also New Series No. 3, American Institute of Civics, New York, 1895. 44 pp. 10c. 45

——. "Obligations of Citizenship." Goodale, W. H. Am. M. Civics Dec. 1896. 46

——. "Society for Promoting Good Citizenship." Crehore, C. F. Lend a H 4:489 (1890). 47

"Civic Church, The." Stead, W. T. R. of Rs. 8:438 (1893). 48

"Civic Duty." Bishop, J. B. Nation 57:4 (1893). 49

——. "Teaching of Civic Duty." Bryce, James. Forum 15:552; Contemp. 64:14; Ecl. M. 121:217 (1893). 50

"Civic Ideals." Harrison, Frederic. Ann. Am. Acad. Pol. Sci. 12:314 (Sept. 1898). 51

"Compulsory Voting as a Means of Correcting Political Abuses." Holls, Frederick William. Ann. Am. Acad. Pol. Sci. 1:586 (1891). 52

Corruption, Corrupt Practices, Etc. "Best Means of Overcoming Corruption." Pp. 492-504 in "The City for the People or the Municipalization of the City Government and of Local Franchises." Parsons, Frank. Philadelphia, C. F. Taylor, 1900. 8vo, 597 pp. Cloth, $1. 53

——. "Centralization the Cure for Political Corruption." Am. M. Civics Dec. 1890.

——. "Corrupt Practices Acts in England and America." Giles, William A. Chicago, Hamilton Club, 1899. Pamphlet. 10 pp. 54

——. "Ethical Survivals in Municipal Corruption." Addams, Jane. Int. J. of Ethics 8:273 (April, 1898). 55

——. "A Brief Review of Legislation Against Corrupt Practices at Elections." Sherman, Rogers. Chicago, Hamilton Club, 1899. Pamphlet, 7 pp. 56

——. "Money in Elections." Cent. n. s. 22:952 (1892).

——. "Money in City Elections." Bishop, J. B. Address before the Commonwealth Club, March 21, 1887. Reported in the Evening Post. 57

——. "Money in Elections, Machine Politics and." Ivins, W. M. New York, Harper Bros., 1887. 150 pp. 25 cts. 58

——. "Money in Politics, Corrupt Use of, and Laws for its Prevention." Gregory, C. Noble. Paper read before the Historical and Political Science Association of the University of Wisconsin, 1893. 25 pp. 25 cts. 59

——. "Money Power in Politics." Bishop, J. B. Nation 44:180, 204, 220 (1887). 60

——. "Money in Practical Politics." Jenks, Jeremiah W. Cent. 44:940 (1892). 61

——. "Municipal Corruption." Smith, Goldwin. See his "Our Situation Viewed from Without." No. Am. 160:552 (1895). 62

——. "Political Corruption, How Best Oppose." Will, T. E. Arena 10:845 (1894). (Brief Bibliography). 63

——. "Publicity as a Cure for Political Corruption." Welsh, H. Forum 14:26 (1892). 64

——. "Reform of Present Political Corruption." Rice, Allen T. No. Am. 148:82 (1889). 65

——. "The Morals of Municipal Corruption." Nation 66:297 (April 21, 1898).

Elections, Ballot Reform in Cities.—*Continued.*

——. "Utter Corruption in American Politics." Northcote, A. S. Nineteenth Cent. 35:692 (1894). 66

——. "Venal Voting, Methods and Remedies." McCook, J. J. Forum 14:159 (Oct. 1892). 67

——. "Alarming Proportion of Venal Voters." McCook, J. J. Forum 14:1 (Sept. 1892). 68

——. (See also following articles under Elections).

Elections. Ballot Law Reform. Bishop, J. B. Nation 46:46 (1888); Dana, R. H. Lend a H. 4:204 (1890); Grubb, E. B. No. Am. 155:684 (1892); Hoadley, G. Forum 7:623 (1889); Vassault, F. I. Overland n. s. 13:134 (1889); Wigmore, J. H. Nation 49:165 (1888); anon. Pub. Opin. 8:327 (1890).

——. "A Lesson in Electoral Reform." Deming, C. Nation 52:25 (1891). 69

——. "A Logical System of Municipal Elections." Clark, C. C. P. p. 524, Proc. Second Natl. Conf. for Good City Govt., 1895. See 6-18b. 70

——. "Ballot Reform Essential to Free and Equal Elections." Binney, Charles Chauncey. Philadelphia, Pennsylvania Civil Service Reform Association, 1889. 43 pp. 71

——. "Elections." Chapter III, p. 45 "Municipal Reform in the United States," by Thomas H. Devlin. New York, Putnam, 1896. 174 pp. 75 cts. 72

——. "Fraudulent Elections in the United States." Cook, J. Our Day 10:814 (1892). 73

——. "Genuine and Bogus Electoral Reform." Bishop, J. B. Nation 52:493 (1891). 74

——. "Juggling with the Ballot." Goff, John W. No. Am. 158:203 (1894). 75

——. "Municipal Voters." Richardson, Charles. Pp. 256-260 Pro. of the Louisville Conf. for Good City Govt., 1897. See 6-18d. 76

——. "Progress of Electoral Reform." Mather, F. G. Andover R. 16:492 (1891). See also Nation 48:460 (1889). 77

——. "Reform of Our Municipal Elections." Fisher, Francis. Philadelphia, 1866. 78

"Guilds, City Government by." (Election by social groups instead of geographical divisions). Cutter, John D. Cent. o. s. 34:157 (1887). 79

Money in Elections. (See under Corrupt Practices, etc. above).

"Machine Politics." Soc. Econ. 2:1 (1891).

——. "The 'Machine' Abolished and the People Restored to Power by the Organization of all the People on the Lines of Party Organization." Clark, Charles C. P. New York, Putnam's Sons, 1900. 12mo, 196 pp. Cloth, $1. 80

——. "The 'Machine' and City Government." (Editorial). Self-Cult. 9:475 (June, 1899).

——. "Machine Politics and Money in Elections." Ivins, W. M. New York, Harper Bros., 1887. 150 pp. 25 cts. 81

——. "The Machine versus the People." Cent. 44:154 (May, 1892).

——. "The Machine versus the Popular Will." Nation 54:390 (May 26, 1892).

——. "The 'Political Machine.'" Ind. 51:2490 (Sept. 14, 1899).

——. "Why the Machine Lives." Watson, Edward W. City and State Vol. I, No. 25, p. 6 (1895). 82

Nominating System. (See under Primary below).

"Ownership Vote, The." Wade, H. T. Westm. 143:316 (1895). 83

"Political Assessments." Roosevelt, Theodore. Atlan. 70:103 (1892); Whitridge, F. W. Lalor's Cyclopedia Vol. I, pp. 153-55. 84

Primaries, Primary Reform, Nominating Machinery, Etc. "Direct Nomination of Candidates by the People." Hopkins, John S. Arena 19:729 (June, 1898). 85

——. "A New Kind of Primary." Nation 66:161 (March 3, 1898).

——. "Futility of Primary Reform." (Editorial). Nation 65:431 (Dec. 2, 1897).

——. "How to Reform the Primary Election System." Insley, Edward. Arena 17:1013 (June, 1897). 86

——. "Legalization of the Primary." Commons, John R. N. Y. Conference on Practical Reform of Primary Elections, p. 18. Chicago, Hollister, 1898. 8vo, 150 pp. Paper. 87

——. "National Conference on Practical Reform of Primary Elections, held at the Rooms of the New York Board of Trade and Transportation Jan. 20, and

Elections, Ballot Reform in Cities.—*Continued.*

21, 1898." (Papers, addresses, discussions). Chicago, Hollister & Bro., Printers, 1898. 150 pp.

——. "Nominating Conventions." Godkin, E. L. Nation 22:240 (April 13, 1876). 88

——. "Nominations for Elective Office in the United States." Dallinger, Frederick W. (Harvard Historical Studies). New York, Longmans, Green & Co., 1897. 8vo, 290 pp. Cloth, $1.50. 89

——. "Nominations for Public Offices." Sulzberger, M. Penn. Monthly 12:177 (March, 1881). 90

——. "Our Nominating Machines." Green, G. W. Atlan. 52:323 (Sept. 1883). 91

——. "Primary Elections." Eaton, Dorman B. Lalor's Cyclopedia, Vol. III, pp. 343-50. 92

——. "Primary Elections." Remsen, Daniel S. New York, G. P. Putnam's Sons, 1894. 117 pp. 75 cts. 93

——. "Primary Election Laws, Report of the Special Committee of the Buffalo Republican League on." Buffalo, 1897. Pamphlet 23 pp.

——. "Primary Election Reform." Kies, W. S. Municipality Vol. I, No. 4, p. 21 (Oct. 1900). 94

——. "Primary Elections; Reform in the Delegate System of Nominations." Hoffman, E. F. Penn. Monthly 12:602 (Aug. 1881). 95

——. "The Primary and the Prayer Meeting." Clarke, Francis E. City and State, Vol. I, No. 24, p. 5. 96

——. Primary Reform, articles on. Field, D. D. Forum 14:189 (Oct. 1892); Record, Geo. L. Mun. Aff. 2:176 (June, 1898); Schurz, Carl. Hrprs. Wkly. 42:123 (Feb. 5, 1898); anon. Nation 33:486 (Dec. 22, 1881); Ind. 50:117 (Jan. 27, 1898); Outlook 58:261, 266 (Jan. 29, 1898); Gunton's 14:152 (March, 1898); Hrprs. Wkly. 42:218 (March 5, 1898). 97

——. "Regulation of Primaries." Record, George L. N. Y. Conference on Practical Reform of Primary Elections, p. 86. Chicago, Hollister, 1898. 8vo, 150 pp. Paper. 98

——. "Substitutes for the Primary." (Editorial). Nation 65:490 (Dec. 23, 1897).

——. "Tendencies in Primary Legislation." Branson, Walter J. Ann. Am. Acad. Pol. Sci. 13:346 (May, 1899). 99

——. "The Nominating Ballot." Brooks, F. M. Outlook 57:950. Editorial on same subject 57:943 (1897); McConachie, L. G. Outlook 58:176 (Jan. 15, 1898). 100

——. "The Nominating System." Ch. III, p. 48. "Unforeseen Tendencies of Democracy." Godkin, E. L. New York, Houghton, Mifflin & Co., 1898. 265 pp. $2. Also article by same writer, Atlan. 79:450 (April, 1897). 1

——. (See also under Caucus System above).

Property Qualifications. "Report of the Tilden Commission." Mun. Aff. 3:434 (Sept. 1899). (See also Elections under **Germany**).

Proportional Representation, Preferential Voting, Etc. (See under **Proportional Representation**).

Registration. "The American Ballot." Lusk, H. H. Forum 22:225 (Oct. 1896). 2

"Ross, Robert, The Life of." A Story of Patriotism calling for municipal reforms." Ross, James H. Boston, James H. Earle, 1894. 180 pp. 75 cts. 3

"St. Louis Election Schools, The." Saunders, William F. Am. Mo. R. of Rs. 17:326 (March, 1898). 3a

"Separate City Elections." Nation 40:333 (1885).

——. "Elections in Cities Separate from State." Bishop, J. B. Nation 58:422 (1894). 4

——. "Evils of Drawing Party Lines in Local Affairs." Speakman, Thomas H. 10 pp. 1873. 5

——. "Separation of Municipal from other Elections." Roome, W. Harris. p. 144, Proc. First Natl. Conf. for Good City Govt., 1894. See 6-18a. 6

"State Control of Political Parties." Pavey, F. D. Forum 25:99 (March, 1898). 7

"Suffrage in Cities." Sterne, Simon. New York, Putnam's, 1878. 41 pp. 25 cts. 8

——. "Right of Suffrage in Cities." Nation 25:235 (1877).

——. "Safeguard of the Suffrage." Gladden, Washington. Cent. 37:621 (1889). 9

——. "Suffrage and the Ballot." Remsen, D. S. New York, Appleton, 1892. 10

Three Class Election System. (See Elections under **Germany**).

Venal Voting. (See under Corrupt Practices above).

Electrolysis.

See also Battle Creek (Mich.), Chicago, Dayton, Kansas City, New York, Peoria, Providence, Reading (Pa.), Yonkers.

"A British View of Electrolysis." Irving, D. Engng. Rec. 42:41 (July 14, 1900). 11

"Cure of Electrolysis by Independent Returns." Newbaker, C. A. Am. Elec. 12:72 (Feb. 1900), Prog. Age 18:70 (Feb. 15, 1900). 12

"Effect of Joint Resistance on Railway Electrolysis." Knudson, A. A. Am. Elec. 12:119 (March, 1900). 13

"Electrolysis." Davis, F. A. W. Pp. 25-37 in "Third Annual Report of the Central States Water Works Association, Cincinnati, O. Sept. 5-7, 1899. Mun. Engng. 17:349 (Dec. 1899), Am. Gas Light J. 71:966 (Dec. 18, 1899); Knudson, A. A. Mun. & Ry. Rec. 4:54 (Feb. 15, 1899); Schaeffer, J. H. pp. 50-53 in report of Central States W. W. Assoc. quoted above; Jenkins, E. H. Am. Gas Light J. 72:652 (April 23, 1900), Prog. Age 18:189 (May 1, 1900), St. Ry. R. 10:260 (May 15, 1900). 14

"Electrolysis in the Cleaning of Metallic Surfaces." Burgess, C. F. Elec. World 32:445 (Oct. 20, 1898). 15

"Electrolysis Decision." Prog. Age 17:383 (Sept. 1, 1899).

"Electrolysis from Facts and Figures." Brownell, E. E. J. N. E. W. W. Assoc. 14:363 (June, 1900); Mun. Engng. 19:74 (Aug. 1900). 16

"Electrolysis from the Ground Return Current of Street Railways." Herrick, Albert B. St. Ry. J. 16:472 (May 5, 1900). 17

"Electrolysis from Railway Currents." Abbott, Arthur V. Cassier's 16:371 (Aug. 1899). 18

"Electrolysis Scare, The." (Editorial). Public Improvements 1:305 (Oct. 15, 1899).

"Electrolysis from the Standpoint of the Municipal Electrician." Wynkoop, H. S. Prog. Age 17:500 (Nov. 1, 1899), Mun. Eng. 17:270 (Nov. 1899). 19

"Electrolysis of Underground Pipes." Blake, Lucien I. Prog. Age 18:11 (Jan. 1, 1900). 20

"Electrolysis, an Unsolved Municipal Problem." Wynkoop, Hubert S. Pp. 119-142 in "Pro. Brooklyn Engineers' Club for 1899." 8vo, 233 pp. Paper, $2. Articles by same writer, Mun. & Ry. Rec. 5:10 (July 15, 1899), Fire & W. 26:388, 394, 400 (Nov. Dec. 1899); anon. Elec. W. & E. 33:543 (April 29, 1899). 21

"Fallacies Regarding Electrolysis, Some." Herrick, Albert B. St. Ry. J. 14:775 (Dec. 1898). 22

"Features of Electrolysis from Railway Work." (Editorial). Elec. Eng. 26:434 (Nov. 3, 1898).

Gas and Water Mains, Electrolysis of. Brown, Harold P. Prog. Age 17:13 (Jan. 2, 1899); Chamen, W. A. J. Gas Lgt. (June 7, 1898); Fleming, J. A. St. Ry. Rev. 8:807 (Nov. 15, 1898); Prog. Age 16:553 (Dec. 1, 1898); anon. Ry. World 8:67 (Feb. 9, 1899); Irving, D. J. Gas Lght. (June 5, 1900); anon. J. Gas Lght. 76:843 (Oct. 2, 1900). (See also under Water Mains below). 23

"Prevention of Electrolysis." Addams, Alton D. Mun. Engng. 18:1 (Jan. 1900); anon. Prog. Age 17:272 (July 1, 1899). 24

"Problem of Electrolysis." Engng. Rec. 39:465 (April 22, 1899).

"Railway Electrolysis Popularized." Am. Gas Light J. 70:609 (April 24, 1899).

"Underground Metal Structures, Electrolysis of." Maury, Dabney H. Engng. N. 44:38 (July 19, 1900), Am. Gas Light J. 73:165 (July 30, 1900), St. Ry. R. 10:433 (Aug. 15, 1900), pp. 121-135 in Proc. xxth Annual Meeting of Am. Water Wks. Assoc., Richmond, Va., May 15-18, 1900. 8vo, 216 pp. Cloth, $1. 25

Water Mains, Electrolysis of. Blake, Lucien I. Elec. W. & E. 34:934 (Dec. 16, 1899); Davis, F. A. W. City Govt. 7:144 (Dec. 1899). (See also under Gas and Water Mains above.) 26

——. "Electrolysis and Water Supply." Rowe, C. E. Pp. 17-19 in "Second Annual Convention of the Central States Water Works Association, Springfield, O., Sept. 27-29, 1898." 27

Elevated Railways. (See under **Transit Facilities**).

Elmira, N. Y., History, Description and Statistics of in 1880. Census. See 1-7.

Employment Bureaus, Municipal; Employment of Laborers by the Municipality. (See under **Labor and its Relation to the Municipality**).

Engineering, Municipal. (See also under **Conduits, Electrolysis, Garbage Disposal, Sanitation, Sewage Disposal, Streets, Transit Facilities, Water, Etc.**).

See also Germany, Illinois, London, Michigan, New York, Paris, Philadelphia, St. Louis.

"Appointment of Boards of Public Works and Engineers, and Checks Upon Their Action, The Method of." Brown, Chas. Carroll. Mun. Engng. 13:276 (Nov. 1897). 28

City Engineer. "Office of City Engineer." (Statistics). Engng. News Feb. 1, 1894.

——. "The Consulting Engineer in Municipal Affairs." Searles, Wm. H. J. Asso. Engng. Soc. 19:107 (Sept. 1897). 28a

——. "The Duties and Compensations of Municipal Engineers." Thompson, A. D. Mun. Engng. 16:1 (Jan. 1899). 28b

——. "Engineers as Commissioners for Public Works." Schurz, Carl. Engng. News Feb. 1, 1894. 29

——. "Fees of Consulting Engineers." City Govt. 6:37 (Feb. 1899).

——. "Notes from Reports of City Engineers." Engng. News Feb. 15, 1894.

"Contracts and Specifications, Engineering." Johnson, J. B. New York, Engineering News Pub. Co., 2d ed., 1898. $3. 30

"Electricity in Municipal Engineering." Owens, R. R. Elec. Eng. 25:131 (Feb. 3, 1898), Elec. World 31:151 (Jan. 29, 1898). 31

"Engineering and Architectural Jurisprudence." Wait, J. C. New York, Wiley & Sons, 1897. 8vo, 905 pp. Cloth, $6. 32

"Laying Out of Cities, Practical and Aesthetic Principles for the." Stübben, J. Trans. Am. Soc. Civil Engrs. 29:718 (1893). 33

——. "Der Städtebau." (Contains sections devoted to Housing, Streets, Parks, Gardens, Public Squares, Trees, Street Railways, Monuments and Decoration in their relation to the general plan of the city, with extracts from the building laws, regulations and forms of a number of German cities). Handbuch d. Architektur IV. Teil, 9 Halb-Band. Stübben, J. Darmstadt, Arnold Bergsträsser, 1890. 561 pp. 32m. 34

"Management of a City Engineer's Office." Kimball, Geo. A. Engng. Rec. Feb. 3, 1894. 35

"Management of Public Works. Municipal Government, with Especial Reference to the." J. Assoc. Engng. Soc., March, 1892, pp. 123-65. A description of the systems of the following cities: St. Louis, by Robert Moore; Boston, by William Jackson; New York, by F. M. Scott; Providence, by J. H. Shedd; Buffalo, by E. B. Guthrie; Philadelphia, by Dwight Porter; and Paris, by Henry D. Woods. See also Engng. News Feb. 27, March 5, 1892. 36

"Municipal Engineering." Anon. Engng. N. Jan. 16, 1886, and succeeding numbers; San. Rec. 20:445 (Oct. 22, 1897).

"Municipal Engineering Abroad." Hering, Rudolph. Engng. Rec. Sept. 26, 1891, p. 261. 37

"Municipal Improvements, a Manual of the Methods, Utility and Cost of Public Improvements for the Municipal Offices." Goodhue, W. F. New York, Wiley & Sons, 1900, 3d ed. 12mo, 216 pp. Cloth, $1.75. 38

"Municipal and Sanitary Engineer's Handbook." Boulnois, H. Percy. London, E. & F. N. Spon, 1892. 8vo, 445 pp. 15s. 39

"Planning the Site for a City." Haupt, Lewis M. Engng. M. 8:626 (1895). 40

"Plans and Specifications." Duryea, E. Jr., Cranford, W. V. Pp. 143-165 in "Pro. Brooklyn Engineers' Club for 1899." 8vo, 233 pp. Paper, $2. 41

"Present Problems in Municipal Engineering." Meade, Thomas De Courcy. Engng. Rec. 42:199 (Sept. 1, 1900); Mun. Engng. 19:289 (Oct. 1900); anon. Engng. Rec. 42:221 (Sept. 8, 1900). 42

"Problems in Municipal Engineering, Some." Hastings, L. M. J. Assoc. Engng. Soc. Nov. 1891, p. 549. 43

"Public Work Methods." Brown, Charles Carroll. City Govt. 2:14 (Jan. 1897). 44

"Public Works." Commons, John R. Our Country 5:76 (March, 1897). 44a

Engineering, Municipal—*Continued.*

——. "Public Works Abroad. Observations in London and Paris, City Methods Compared." (Article published first in the New York "Sun.") An extract describing City Works in Paris is published in City Govt. 2:78, 118 (March and April, 1897). Collis, C. H. T. New York, 1897. Pamphlet, 31 pp. 44b

"The Ideal City Engineering Bureau." Collingwood, Francis. Engng. M. 9:445 (1895). 44c

"Value of Engineering Services." (Editorial). City Govt. 6:34 (Feb. 1899).

England. (See **United Kingdom**).

Epernay [Fr.] Workmen's Dwellings. "Cité Ouvrière d'Epernay." Jemot & Levy. Nouv. Annales de la Const. p. 34, 1880. 45

Erfurt, Germany.

Lighting. "Benzolized Water Gas at Erfurt." J. Gas Light 76:1386 (Dec. 4, 1900).

Erie, Pa.

"Library, The Erie Public." City Govt. 8:114 (May, 1900).

"Water Works of Erie, Pa." Fire and W. March 21, 1896.

Essen, Ger.—Housing. "Die Arbeitercolonien der Gussstahlfabrik von Friedrich Krupp in Essen." Beyer. Deutsche Viert. f. Oeff Gesundheitspfl. p. 615, 1874. See also article, Glückauf, May 29, 1897; and Wiebe, pp. 187-197, Heft 31, Schr. d. Ver. f. Socialpolitik. 46

Europe. (See under **City Government, General Works and Unclassified,** especially 1-5, also under names of various countries in Europe).

"**Evansville, [Ind.]** The Potato Patch, Experience in." Hornbrook, R. S. Indiana Bulletin of Charities and Correction June, 1898. 48

Excise. (See **Liquor Problem in Cities**).

Exeter, Eng.

"Exeter." (History). Freeman, E. A. London, Longmans, 1887. Historic Towns Series. 8vo. 3s. 6d. (For other references on the history of Exeter see p. 231 Gross' Bibliography of British Municipal History). 49

"Sewage Treatment at Exeter, England, The Septic Tank System of." Crane, Albert S. Engng. News 39:18 (Jan. 13, 1898); anon. San. Rec. 20:584, 607 (Nov. 26, Dec. 3, 1897). 50

Expropriation.

See also France, Germany.

"De l'Occupation temporaire en vue de l'exécution des travaux publics, loi du 29 décember, 1892." Bourcart, G. Paris, Pédone, 1895. 8vo, 167 pp. 3 fr. 51

"La municipalisation du sol dans les grandes Villes." Einaudi, Luigi. Paris, Giard & Brière, 1898. Pamphlet 60 pp. (Extrait du Devenir Social 4:1, 127 (1898). 2 fr. 52

"Sanitary Purposes, Expropriation for." Ch. III, pp. 53-68. Eighth Special Report of the Commissioner of Labor on "The Housing of the Working People," by E. R. L. Gould. 53

Fall River, Mass.

"A Typical New England Factory Town, Fall River, Mass." Blatch, Harriet Stanton. Humanitarian April, 1899. 54

History, Description and Statistics of Fall River, Mass., in 1880. Census. See 1-7.

"Street Railway System of Fall River, Mass." St. Ry. Jour. April, 1893, p. 201.

"**Farmville, Va.,** The Negroes of: A Social Study." Du Bois, W. E. Burghardt. Bulletin Dept. Labor No. 14, p. 1 Jan. 1898. 55

Ferries. (See under **Transit Facilities**).

Finance, Municipal.

See also Adelaide, Australia, Baltimore, Basel, Berlin, Birmingham, Boston, California, Canada, Chicago, England under United Kingdom, Florence, France, Germany, Glasgow, Havana, Iowa, Ireland under United Kingdom, Issoire (Fr.), Italy, London, Martinique, Massachusetts, Naples, New Jersey, New York, New York State, New Zealand, Ohio, Omaha, Paris, Pennsylvania, Philadelphia, Prussia, Russia, San Francisco, Scotland under United Kingdom, Spain, Switzerland, United Kingdom, United States, Wales under United Kingdom, Washington, Wisconsin, Würtemberg under Germany, Wyoming.

General Works and Unclassified.

"Administration des Finances Municipales." Blanc, Charles. Paris, Cotillon, 1881, 5 fr. 56

"Comparative Table Showing the General and Financial Condition of the cities of Detroit, Buffalo, Cincinnati, Louisville, St. Paul, Minneapolis, Cleveland, Milwaukee and Rochester. Blades, F. A., compiler. Detroit, 1899. 6 pp. 57

"Contract System, A Municipal." Foote, Allen Ripley. Prog. Age 18:12 (Jan. 1, 1900). 58

"Cost of City Government." Chapter VI, p. 105, "Municipal Reform in the United States," by Thomas H. Devlin. New York, Putnam, 1896. 174 pp. 75c. 59

"Das Kommunale Finanzwesen." (England, France, Belgium, Germany, Austria). Reitzenstein, F. Frh. v. pp. 559-687 of Gustav Schönberg's "Handbuch d. Pol. Oekonomie." 3d Bd. Finanzwissenschaft. Tübingen, H. Laupp, 1885. 60

"Debt and Local Taxation, Municipal." Wells, David A. Ed. R. 167:350 (1888). 61

——. "Local Taxation, Debt and Government." Conder, F. R. Fraser 93:360 (1876). 62

——. "Municipal Debt and Local Taxation." Ed. R. 167:350 (1888).

"Delusive Methods of Municipal Financiering." Ford, William F. Pubs. Phil. Soc. Sci. Assoc., 1879. 63

"Dictionnaire des Finances." Say, Léon. Paris, Berger, L. et Cie., 1889. 2 Vols. 1562 and 1571 pp. 90 fr. (Important articles in Assistance Publique à Paris, Le Budget Communal, Communes, Octrois, etc., etc). 64

"Economy, Municipal." Harris, D. L. J. Soc. Sci. 9:147 (1878). 65

"Endowments and Municipal Property, Municipal." Pp. 44-51 in "Municipal Extensions and Other Essays." Ellery, T. George. Adelaide, W. R. Thomas & Co., 1899. 12mo, 51 pp. Pamphlet. 66

"Essai sur les Finances Communales." Paul-Dubois, L. Paris, Perrin & Co., 1898. 12mo, 306 pp. 67

"Extravagance, Municipal." Ellis, A. B. Atlan. 52:84 (1883); Harris, D. L. Penn. Mo. 7:913 (1876). 68

"Finances Communales: Etude Theorique et Pratique." Acollas, René. Paris, Giard, et E. Brière, 1898. 12mo, 259 pp. Paper, $1. 68a

"Finanzwesen der Selbstverwaltung in einigen Staaten." (England, Prussia, Austria, France, Belgium). pp. 110-130 of Adolph Wagner's "Finanzwissenschaft." Dritte Auflage. Leipzig, Winter, 1883. 69

"Gemeindefinanzen." Eheberg, K. Th. Vol. IV, pp. 106-144 Conrad, 2d ed. See 2-10. 70

"Municipal Finance." Boyden, H. P. Public Policy 2:62 (Jan. 27, 1900); Hall, C. C. Scrib. M. n. s. 3:33 (1888); Hirst, F. W. Econ. J. 9:384 (Sept. 1899); Ivins, W. M. Harper 69:779 (1884). 71

"Municipal v. Private Financiering." Gemünder, M. A. City Govt. 2:109 (April, 1897). 72

"Municipal Finance Statistics." Gardner,, Henry B. Am. Statis. Assoc. 1:254 (1889). Separate pamphlet No. 6. 75 cts. 73

"Municipal Revenue in Europe." Ulrich, B. A. City Govt. 1:43 (1896). 74

"Parish Finances." Blake, H. B. Boston R. 6:559 (1866). 75

"Suggestions for the Study of Municipal Finance." Clow, Fred R. Q. J. Econ. 10:455 (1896). 76

"Taxpayer in City Government, The Interest of the." Leitsch, W. C. Proceedings of the Convention of the League of Wisconsin Municipalities, Bulletin No. 3, pp. 38, June 26-27, 1899. 77

"Valuation, Taxation and Indebtedness." Porter, Robert P. Washington, Government Printing Office, 1884. 909 pp. Tenth Census of the United States. 78

Finance, Municipal—*Continued.*

"Wealth, Debt and Taxation." Upton, J. Kendrick. Washington, Government Printing Office. 1892. 890 pp. Eleventh Census of the United States. 79

"Accounts, Municipal and Other." Laing, J. B. Mun. World Vol. 8, No. 1, p. 4. (Jan. 1898). 80

—. "Classification of Municipal Receipts and Expenditures." Rowe, Leo. S. Ann. Am. Acad. Pol. Sci. 12:436 (Nov. 1898). 81

—. "Examinations of Public Accounts." Henderson, Harry B. Public Policy 3:213 (Oct. 6, 1900). 82

—. "Municipal Accounting." Cal. Mun. 1:35 (Sept. 1899).

—. "Municipal Economics." (Publicity of accounts, etc.) Commons Vol. 2, No. 6, p. 5 (Oct. 1897).

—. "Public Accounting." Rowe, L. S. Public Policy 2:126 (Feb. 24, 1900); Prog. Age 18:121 (March 15, 1900). 83

—. "Public Accounting under the Proposed Municipal Program." Rowe, Leo. S. pp. 104-123 in Proc. of the Columbus Conf. for Good City Govt., 1899. See 6-18f; also pp. 89-110 in "A Municipal Program." New York, Macmillan, 1900. 8vo, 246 pp. Cl. $1. 84

—. "The Financial Reports of Municipalities, with special Reference to the Requirement of Uniformity." Hartwell, E. M. pp. 124-135 in Proc. of the Columbus Conf. for Good City Govt., 1899. See 6-18f. 85

—. "Uniform Municipal Accounting." Baker, M. N. Public Policy 3:186 (Sept. 29, 1900). 86

—. "Uniform Municipal Accounts and Reports." Baker, M. N. Public Policy 3:183 (Sept. 22, 1900). 87

—. "Uniformity in Municipal Finance." Tooke, C. W. Mun. Aff. 2:195 (June, 1898), Prog. Age 16:436 (Sept. 15, 1898). 88

—. "Uniformity for Purposes of Comparison, The Importance of." Sparling, Samuel E. pp. 136-147 in Proc. of the Columbus Conf. for Good City Govt., 1899. See 6-18f. 89

"Bonds, Municipal." Dillon, John F. St. Louis, G. I. Jones & Co., 1876. 63 pp. Paper 75 cts. 90

—. "American Municipal Bonds as Investments." J. H. Rudall & Sons, editors. 1874.

—. "How Municipal Bonds Should be Issued." Dow, W. A. Cal. Mun. 2:75 (April, 1900). 91

—. "Law of Municipal Bonds." Burhans, J. A. Chicago, S. A. Kean & Co., 1899. 342 pp. $4. 92

—. "Municipal Bonds." Ford, W. F. J. Soc. Sci. 15:156 (1882); Green, G. W. Lalor's Cyclopedia, Vol. II, pp. 920-3. 93

—. "Municipal Bonds, a Consideration of the Various Classes of Municipal and other Bonds with a Comparison of their Relative Security." Gay, Eben H. Boston, Damrell & Upham, 1890. 43 pp. 50 cts. 94

Budget. "Le Budget Communal." de Crisenoy, J. D. Vol. I, pp. 467-485. "Dictionnaire des Finances." Say, Léon. See 2-12. 95

—. "Bulletin Annuel des Finances des Grandes Villes." Körosi, Jos. Budapest, 1876-84. 3m. each. 96

"Control over Municipal Receipts and Expenditures, Financial." Crosby, Albert F. pp. 148-154 in Proc. of the Columbus Conference for Good City Govt., 1899. See 6-18f. 97

—. "Financial Control: Capitalization, Methods of Accounting and Taxation." Coler, Bird S. Ann. Am. Acad. Pol. Sci. May, 1900, Supp. p. 21. 98

Debts, Municipal, Debt Limitation, etc. "Creditwesen der Staaten und Städte der Nordamerikan. Union in s. histor. Entwickelung." Plehn, Carl Copping. Jena, Fischer, 1892. 8vo, 93 pp. 2m. 99

—. "Constitutional Limitations of Municipal Indebtedness in Relation to Public Improvements." Tooke, C. W. Public Imp. 1:214 (Oct. 1, 1899), Other Side 1:162 (Oct. 7, 1899). 100

—. "Constitutional Limitation of the Financial Powers of Municipalities to Public Works, Relation of." Tooke, Charles W. Mun. Engng. 16:164 (March, 1899). 1

—. "Debts of Cities." Hale, C. Atlan. 38:661 (1876). 2

Finance, Municipal—*Continued.*

——. "Debts and Resources of the States, Cities and Towns." (Supplement to the Commercial and Financial Chronicle, issued quarterly.) New York, Dana Co., April 15, 1899. 4to, 188 pp. Paper, 25 cts.

——. "Limitation of Indebtedness of Municipal Corporations." Tooke, C. W. Mun. Engng. 18:243 (April, 1900). Pub. Policy 2:303 (May 12, 1900). 3

——. "Limitations on Municipal Indebtedness." Berryman, J. R. Central Law Journal 29:346, 364 (1889). 4

——. "Local Deficit Financiering." Pt. III, "Public Debts." Adams, Henry C. New York, Appleton's, 1887. 8vo, 497 pp. $2.50. 5

——. "Municipal Debt and Local Taxation." Ed. R. 167:350 (1888).

——. "Municipal Debts." Porter, Robert P. Bank. M. (N. Y.) 35:800 (1876). 6

——. "Municipal Debts Increasing—State Debts Decreasing." (Editorial.) Mun. Rec. & Ad. Vol. I, No. 14, p. 3, (Sept. 11, 1897).

——. "Municipal Indebtedness." Art. 8, Sec. 10, New York State Constitution of 1894.

——. "Municipal Indebtedness." Freud, J. Rich'd. Mchts. Assoc. R. Vol. 2, No. 2, p. 5 (Oct. 1897). 7

—— "National, State and Local Debts." Porter, Robert P. Lalor's Cyclopedia, Vol. I, pp. 725-34. See 1-1. 8

——. "Percentage Limitation, The Problem of the." Tooke, C. W. Mun. Engng. 17:198 (Oct. 1899). 9

——. "Population and Bonded Debt of Leading American Cities, The." (Editorial.) Mun. Rec. & Ad., Vol. I, No. 13, p. 3 (Sept. 4, 1897).

——. "Power to Incur Indebtedness, The City's." Coler, Bird S. City Govt. 7:152 (Dec. 1899). 10

——. "Power of Municipal Corporations to Borrow Money." Dillon, John F. Southern Law R. 6:663 (1881). 11

——. "Power to Incur Indebtednes under the Proposed Municipal Program." Coler, Bird S. Pp. 96-103 in Proc. of the Columbus Conference, 1899, see 6-18f. Also pp. 111-119 in "A Municipal Program." New York, Macmillan Co., 1900. 8vo, 246 pp. Cl. $1. 12

——. "Some Fallacies About Local Indebtedness." Beckett, J. Mun. J. & London 8:1097 (Oct. 6, 1899). 13

"Franchises, Taxation of." St. Ry. J. 15:381 (June, 1899).

——. "Franchises and Taxation." Ninth Biennial Report of the Bureau of Labor Statistics of Illinois. Springfield, 1896. 8vo, 320 pp.

——. "Shall Franchises be Taxed?" Vincent, Edgar L. Self Cult. 10:138 (Oct. 1899). 14

——. "Taxation of Corporation Franchises." Gunton's 16:417 (June, 1899).

——. "Taxation of Franchises." Marshall, Matthew. Prog. Age 17:471 (Oct. 16, 1899); Fletcher, William Meade. Chicago, Hamilton Club, 1900, 8vo, 38 pp; anon. Railroad Gaz. 31:190 (March 17, 1899). 15

——. "Taxation of Gas by local authorities." Carr, Isaac. Gas World (London) June 19, 1897. 16

——. "Taxation of Public Franchises." Ford, John. No. Am. 168:730 (June, 1899). 17

——. "Taxation of Street Railroad Franchises." Williams, Timothy S. Public Policy 3:299 (Nov. 10, 1900), St. Ry. J 16:1138 (Nov. 24, 1900). 17a

——. "Taxation of Street Railways for Purposes of Revenue and Control." Curtis, Charles E. Yale R. 8:173 (Aug. 1899). 17b

——. "Taxation of Public Service Corporations." Public Policy 3:403 (Dec. 29, 1900).

——. "The Franchise Tax." Theodore Roosevelt. Prog. Age 18:58 (Feb. 1, 1900). 18

"Octrois." Renouard, Alfred. Pp. 395-419, Vol. II Say's Dict. d'Econ. Politique; Martel, J. Pp. 663-636 Vol. II. Ibid. See 2-12. 19

——. "Impositions municipales en vue de la suppression des Octrois." Desplanques, A. Paris, Savine, 1893. 12mo, 97 pp. 2 fr. 20

——. "L'Octroi, pourquoi il est conservé." Block, Maurice. Paris, Berger, L. et Cie., 1878. 8vo, 40 pp. 1 fr. 50c. 21

——. "Les Octrois en France et à l' Etranger." d'Avenel, Georges. Paris, Guillaumin et Cie., 1881. 47 pp. 1 fr. 21a

Finance, Municipal—*Continued.*

—. Octrois. von Heckel, Max. Vol. V, pp. 50-53 Conrad. 1st ed. '93. See 2-10. 22

—. "Octrois en France et à l'Etranger." d'Avenel, Georges. Paris, Guillaumin et Cie., 1881. 47 pp. 1 fr. 23

—. "Octrois Municipaux." Turquey, Elie. Paris, Giard et Brière, 1899. 8vo. Cl. 7f. 24

—. "Question des Octrois." Berthélemy, H. R. d. Paris 6:880 (Feb. 15, 1899). 25

—. "Suppression des Octrois." Pey, J. B. Paris, Larose et Forcel, 1895. 49 pp. 1fr. 50c.; Weber, Adrien. Rev. Soc. 28:287 (Sept. 1898), 28:719 (Dec. 1898). 26

"Sinking Fund, Calculation of." Mogensen, Peter. Engng. News 38:259 (Oct. 21, 1897). 27

Special Assessments. (See under Taxation below.)

Taxation. "Assessment and Taxation, The Law of." Browne, William W. Rochester, 1887. 28

—. "Bonds, Taxation of City." Belmont, P. Internat. R. 6:463 (1879). 29

—. "City and Country Taxes." West, Max. Pol. Sci. Q. 14:305 (June, 1899). 30

—. "Essays in Taxation." Seligman, E. R. A. New York, Macmillan & Co., 1895. 434 pp. $3. 31

—. "Evils of Tax Administration." Bemis, Edward W. Ind. 50:140 (Feb. 3, 1898). 32

—. "Evils, The Three Fundamental." Seligman, Edwin R. A. Ind. 50:138 (Feb. 3, 1898). 33

—. "Exemption from Municipal Taxation." McLean, F. W. Canadian Monthly 4:388 (1873); 10:311 (1876). 34

—. "Exemption of Personalty: Discussed with Special Reference to City Conditions." Purdy, Lawson. Mun. Aff. 3:299 (June, 1899). 35

—. "Foreign Countries, Taxation in." U. S. Consular Reports Nos. 99 and 100. Pp. 259 to 791. 1888.

—. "Incidence and Administration of Local Taxation." Pell, Albert. National 1:442 (1883). 36

—. "Incidence of Urban Rates." Edgeworth, F. Y. Econ. J. 10:172 (June, 1900). 37

—. "Is an Ideal System Possible?" Means, D. McG. Ind. 50:139 (Feb. 3, 1898). 38

—. Kommunalabgaben. v. Herrfurth. Pp. 590-606, 1st supplement to 1st edition Conrad. See 2-10. 39

—. "Local Option in Taxation." Tuttle, Leonard. Mun. Aff. 2:395 (Sept. 1898). 40

—. Local Option. "Practical Effect of Advances in Tax Law." Bryan, George J. Cedar Rapids, Iowa, Frank Vierth, 1899. Pamphlet, 30 pp. 5 cts. 41

—. "Local Taxation in America, Theory and Practice." Wells, David A. Atlan. 33:59 (1874). 42

—. "Local Taxation and Public Extravagance." Minot, Wm., Jr. J. Soc. Sci. 9:67 (1879); Ecl. R. 79:313 (1844). 43

—. Municipal Taxation, Books and articles on. O'Meara, J. J. London, Cassell & Co., 1894. 310 pp. 7s. 6d. (The appendix shows the financial condition of a number of large municipalities); Palgrave, R. H. Macmil. 33:516 (1875); Commons, John R. Our Country 5:116 (April, 1897); anon. Can. Mo. 4:388 (1873); Arch. & Buil. 30:73 (March 11, 1899). 44

—. "Natural Monopolies and Local Taxation." Ely, R. T. Lend a H. 4:178 (1889). 45

—. "Natural Taxation." (Single tax.) Shearman, Thomas G. New York, G. P. Putnam's Sons, 1895. 239 pp. 75 cts. 46

—. "Principles of Taxation." Wells, David A. Pop. Sci. Mo. Serial beginning Sept. 1896. 47

—. "Rational Principles of Taxation." Wells, D. A. Am. J. Soc. Sci. 6:120 (1874). 48

—. "Reform of Local Taxation." Wells, D. A. No. Am. 122:357 (1876). 49

—. "Single Tax Applied to Cities." Holt, Byron W. Mun. Aff. 3:328 (June, 1899). 50

—. "Single Tax and Special Assessments." Brown, Edward Osgood. The

Finance, Municipal—*Continued.*

Standard 8:4 (1890). 51

——. Single Tax. "Taxation of Ground Values." Sargant, C. H. Contemp. 57:282 (1890). 52

——. Single Tax. "Taxation of Ground Rents." Moulton, J. Fletcher. Contemp. 57:412 (1890). (Reply to above.) 53

——. "Some Recent Books on Local Taxation." Seligman, E. R. A. Q. J. E. 11:201 (Jan. 1897). 54

——. "Taxation as a Partial Substitute for Borrowing to Cover the Cost of Permanent Municipal Improvements." Durand, E. D. Pub. Amer. Econ. Ass'n. 3rd Series 1:123 (Feb. 1900). 55

——. "Taxation, its Sum, Justification and Methods." Belmont, P. Forum March, 1897. 56

——. "The Tax Question." Ensley, Enoch. Public Policy 3:314 (Nov. 17, 1900). 57

——. "Treatise on the Law of Taxation, including the Law of Local Assessments." Cooley, Thomas M. Chicago, Callaghan & Co., 1886. 2d edition. 991 pp. $6. 58

"Special Assessments." Bouton, George T. Mun. Engng. 17:289 (Nov. 1899), City Govt. 7:136 (Dec. 1899). 59

——. "America, Betterment Tax in." Rae, John. Contemp. 57:644 (May, 1890). 60

——. "Assessments for Local Improvements." Weakley, John B. Jr. (Pp. 41-45 in "Proceedings of the 3d Annual Convention of the League of American Municipalities, 1899." 8vo, 148 pp. Also in Public Imp. 1:225 (Oct. 1, 1899), Other Side 1:169 (Oct. 14, 1899), City Govt. 7:95 (Oct. 1899). 61

——. "Betterment and Local Taxation." Quar. R. 178:185 (1894).

——. "Betterment Tax." Seligman, E. R. A. Chapter XI, p. 340, "Essays in Taxation." New York, Macmillan & Co., 1895. 434 pp. $3. Same subject, article by Webb, James Avery. Am. Law R. 33:347 (May-June, 1899). 62

——. Controversy on Betterment. Argyle, Duke of. Contemp. 57:911 (June, 1890); Reply to the preceding, Rae, John. Contemp. 58:133 (July, 1890); "House of Lords and Betterment." Hobhouse, Arthur. Contemp. 65:438 (1894); Reply to preceding by Argyle, Contemp. 65:483 (1894), Rejoinder by Hobhouse, 19th Cent. 65:704 (1894). 63

——. "Decisions on Assessments for Public Works, A Review." Tooke, C. W. Mun. Engng. 18:93 (Feb. 1900). 64

——. "General Taxation and Special Assessment for Municipal Improvements." Lewis, N. P. Mun. Engng. 13:268 (Nov. 1897). 65

——. "I Contributi Speciali per i Lavori di Migliora. Studio di Finanza." Dalla Volta, Da Ricardo. Florence, Bocca, 1896. 68 pp. 66

——. "Justice in Special Assessments." Quick, J. H. Public Imp. 2:49 (Dec. 1, 1899). 67

——. "Municipal Assessments." Simpson, J. Alexander, Jr. Philadelphia, 1891. 68

——. "Pavement, Assessment of the Cost of—in 27 American Cities." Paving and Mun. Engng. April, 1895.

——. "Principles of Betterment." Bellot, H. H. L. Westm. 141:405 (1894). 69

——. "Sewerage Systems and Assessments, Municipal." Bouton, George T. Engng. Rec. 42:268 (Sept. 22, 1900). 70

——. "Sewers and Water Mains, Assessment for." Brown, Charles Carroll. Mun. Engng. 15:215 (Oct. 1898). 71

——. "Special Assessment Systems." (St. Louis, Milwaukee, Denver, Boston, New York.) City Govt. 1:135 (Dec. 1896).

——. "Special Assessments, a Study in Municipal Finance." Rosewater, Victor. Columbia College Studies, Vol. II, No. 3, 1893. 8vo, 152 pp. 75 cts. (Contains a brief bibliography of special assessments.) 72

——. "Special Assessments for City Work." Johnson, J. A. Pp. 37-41 in "Proceedings of the 3d Annual Convention of the League of American Municipalities, 1899." 8vo, 148 pp. Paper. Also in Public Imp. 1:228 (Oct. 1, 1899), City Govt. 7:54 (Sept. 1899), Other Side 1:157 (Oct. 7, 1899). 73

——. "Street Improvement Purposes, Apportionment of Taxation for." Cal. Mun. 1:179 (Jan. 1900).

——. "Street Improvements, Methods of Paying for." Brown, Charles Carroll. Mun. Engng. 12:67 (Feb. 1897). 74

——. "Taxation by Special Assessments." Ch. XX, pp. 606-678 of "A Treatise

Finance, Municipal—*Continued.*

on the Law of Taxation," by Thomas M. Cooley. Chicago, Callaghan & Co., 1886. 991 pp. $6. 75

——. "Theory and Practice of Laying Assessments for Benefit." Lewis, N. P. Public Policy 3:349 (Dec. 1, 1900). 76

Uniform Accounting. (See under Accounts above.)

Finland. (See under **Russia.**)

Fires, Municipal Fire Departments, Insurance, Etc. (See also **Building Laws.**)

See also Baltimore, Berlin, Boston, France, Glasgow, London, Los Angeles, Michigan, New York, Paris, Pittsburg, Providence, Rome.

General Works and Unclassified.

"English and American Fire Services." Purroy H. D. Forum 2:299 (1886). 77

"European and American Fire Systems." Purcell, Thomas P. City Govt. 2:82 (March, 1897). 78

"Fire and Building Regulations in Foreign Countries." (Reports from one hundred and forty-six foreign countries and cities.) United States Special Consular Report. 1892. 543 pp.

"Fire Protection in Europe." Sachs, Edwin O. Engineering (London) Serial, 1st part June 18, 1897. 79

"Fires in American Cities." Peabody, Andrew P. Boston, Damrell and Upham, 1891. 27 pp. 20 cts.; International R. 1:17 (1874). 80

"The Prevention of Loss by Fire, Fifty Years Record of Factory Mutual Insurance, etc., with suggestions for the protection of cities from conflagrations." Atkinson, Edward. Boston, Damrell & Upham, 1900. Pamphlet 95 pp. 81

"Urban Fire Protection." Sachs, Edwin O. London, Batsford, 1895. 36 pp. 1s. 82

"Automatic Fire Alarm Systems." Brophy, William. City Govt. 7:92 (Oct. 1899); Burgher, Charles. City Govt. 9:123 (Nov. 1900). 83

——. "A Great Advance in Fire Alarm Telegraph Protection." Aydon, J. W. Elec. Eng. 26:176 (Aug. 25, 1898). 84

"Fire Department, The." Paige, J. D. Mun. World 10:52 (April, 1900). 85

——. "Equipment and Organization of a City Fire Department." Bonner, Hugh. Engng. M. 14:789 (Feb. 1898). 86

——. "Fire Departments in Europe in Comparison with American." Hosmer. Fire and Water Oct. 3, 1896. 87

——. "Fire Department Statistics." City Govt. 5:154 (Oct. 1898), 5:200 (Nov. 1898).

——. "Fires and Fire Departments." Bugbee, J. M. No. Am. 117:108 (1873). 88

——. "Practical Benefits of Gymnasiums to Fire Departments." Roberts, W. E. City Govt. 5:135 (Oct. 1898). 89

——. "What Fire Departments should have." Paige, J. D. City Govt. 8:35 (Feb. 1900). 90

"Fire Hydrants, The Care of, in Winter." Bailey, George I. Engng. Rec. 40:387 (Sept. 23, 1899). 91

Firemen. "Heroes Who Fight Fire." Riis, Jacob A. Cent. 55:483 (Feb. 1898). 92

——. Insurance of Firemen in case of Accidents. "Assurances des Sapeurs-Pompiers en Cas d'Accidents." R. Municipale 3:1967 (March 10, 1900).

"Fire Proof Construction and Recent Tests." (Tests made by the New York Department of Buildings.) Himmelwright, A. L. A. Engng. M. Dec. 1896. 93

——. "Fireproofing Tests." Am. Arch. May 8, 1897.

——. "Official Test of Fireproof Floor Construction Systems." Engng. Rec. May 29, 1897.

——. "Report of Progress of the Committee on Fire Proofing Tests." Am. Soc. of Mech. Engrs. Dec. 1896.

"Fire Protection." Stevens, Frank B. Ind. Jan. 1900. 94

"Fire Streams and their Handling." City Govt. 9:101 (Oct. 1900).

High Buildings. "Fire Risks on Tall Office Buildings." Atkinson, Edward. Engng. M. 3:149 (1892). 95

Fires, Municipal Fire Departments—*Continued.*

——. "How to Fight Fires in High Buildings." Fire & W. 26:275 (Aug. 19, 1899).

——. "Protection of High Buildings from Fire." Fire & W. 26:42 (Feb. 11, 1899).

——. "The Tall Building Under the Test of Fire." Parsons, H. deB. Engng. M. 16:767 (Feb. 1899). 96

Horses. "Style of Horse best suited to the Fire Service." Devine, James. City Govt. 5:137 (Oct. 1898). 97

——. "The Quick Horse and the American Fire Service." Dellenbaugh, F. S. St. Nicholas Feb. 1898. 98

"How Fires Are Extinguished." English Ill. M. 22:434 (Feb. 1900).

"Insurance, Municipal Fire." Donald, Robert. Contemp. 68:839 (1895); anon. Banker's M. (London) Feb. 1897; Mun. J. & London 9:25, 30 (Jan. 12, 1900). See also under **France.** 99

"The Ounce of Prevention." Affeld, A. O. City Govt. 9:121 (Nov. 1900). 100

"Stand Pipes for Fire Protection and Street Flushing." Tribus, Louis L. Engng. M. 10:1040 (1895). 1

"Street Railways, Fire Protection for." St. Ry. R. 7:305 (May 15, 1897).

"Waste by Fire." Thompson, Clifford. Forum 2:27 (1886). 2

"Water Works and Fire Protection." Freeman, John R. Jour. New Eng. Water Works Assoc. 7:49 (1892). Abstract in Engng. Rec. July 16, 1892. See also Journal of the New England Water Works Assoc. 7:152 (1892) for criticism. 3

"**Florence [Colo.]**, Water Works." Garrett, R. P. Engng. Rec. 41:127 (Feb. 10, 1900). 4

Florence, Italy.

Finance. "De l'Impôt sur le Revenu à Florence au xve Siècle." Barboux, Henri. Rev. Pol. e. Par. 18:517 (Dec. 10, 1898). 5

History. "Forschungen zur Geschichte v. Florenz. 2 Tl. Aus den Stadtbüchern und Urkunden von San Gimignano." Davidsohn, Rob. Berlin, E. S. Mittler & Sohn, 1900. 8vo, 352 pp. 9 marks. 6

——. "The Story of Florence." Gardner, Edmund G. London, J. M. Dent & Co.; New York, Macmillan, 1900. 16mo, 436 pp. Cl. $1.75. 7

"Sewage Disposal, Florence." Bernardi, Spirito. Cons. Rep. 47:202 (1895). 8

Transit Facilities. "Electric Railways at Florence, Italy." St. Ry. J. 15:528 (Aug. 1899); Ry. World 8:295 (Aug. 10, 1899).

"**Florida** Gas Works, Some Random Notes upon." Am. Gas Light J. 67:931 (Dec. 13, 1897).

"**Flushing [L. I.]**, Electric Light and Power Station." Elec. World 30:659 (Dec. 4, 1897).

Foreign Element in American Cities. (See also under **Elections.**)

See also Boston, Chicago, New York.

"Assimilation of Nationalities in the United States." Mayo-Smith, Richmond. Pol. Sci. Q. 9:426 (Sept. 1894). 9

"Control of Immigration." Mayo-Smith, Richmond. Pol. Sci. Q. 3:46, 197, 409 (March, June, Sept. 1888). 10

"Emigration and Immigration." Mayo-Smith, Richmond. New York, Scribner's, 1890. 12mo, 316 pp. $1.50. 11

Foreign Element in Cities. Census Bulletin 357 XIth Census of the U. S., 1890.

——. "Conquest of Our Cities by the Irish." Bocock, J. P. Forum 17:186 (1894). 12

"Mixture of races and nationalities. Theories of." Mayo-Smith, Richmond. Yale R. 3:166 (Aug. 1894). 13

——. "The Immigration Question." Senner, Joseph H. Ann. Am. Acad. Pol. Sci. 10:1 (July, 1897). 14

France.

General Works.

"Administration Communale, Petit Dictionnaire d' A, B, C des Municipalités." Souviron, Alfred. Paris, Berger, L. et Cie., 1880. 1 fr. 50 c. 15

"L'Administration locale en France et en Angleterre." Leroy-Beaulieu, Paul. Paris, Guillaumin, 1872. 8vo. 16

"Arrondissements et Pays de France." des Rotours, J. Angot. Ref. Soc. 6:469 (Oct. 1, 1898). 17

"Conferences sur l'Administration et le Droit Administratif." Aucoc, Léon. Paris, Dunod, 1885-7. 3d ed. 2 vols. 836 and 863 pp. 26 fr. 18

"De l'Administration des communes en France, origine, transformation, état actuel, Lois de 1867 et 1868." de Toulza, Etienne. Paris, Durand et Pedone-Lauriel, 1869. 12mo. 3 fr. 50 c. 19

"Dictionnaire de l'Administration Française." Block, Maurice. Paris, Berger-Levrault et Cie., 1891. 3d ed. 8vo, 2232 pp. (and 122 pp., supplements for 1892, '3 and '4.) (See particularly list of articles under headings: Internal Administration, Communal and Departmental Administration, Police p. viii; Charity, etc. p. ix; Education p. x; Sanitary Administration p. xii; Financial Administration p xii.) 20

"Dictionnaire des Communes (France et Algerie), avec indication des Perceptions dont chaque commune fait partie, etc." Paris, Berger-Levrault et Cie., 1899. 8vo, 755 pp. 6 fr. 21

"Die Oertlichen Verwaltungen." Lebon, André. V Abteilung pp. 56-63, Vol. IV, 1, 4-6. Marquardsen. See 2-9. 22

"Institutions municipales et provinciales comparées. Organisation locale en France et dans les autres Pays de l'Europe. Comparaison; Influence des institutions locales sur les qualités politique d'un peuple et sur le gouvernement parlementaire. Réformes." (Bibliography mainly on the subject of decentralization.) de Ferron, H. Paris, Alcan, 1884. 8vo, 570 pp. 8 fr. 23

"La Commune. Entretiens familiers sur l'Administration de Notre Pays." Block, Maurice. Paris, Hetzel et Cie., 1880. 1 fr. 50 c. 24

"La Réforme Administrative." D'Avenel, Georges. Paris, Guillaumin et Cie., 1902. 3 fr. 50 c. 25

Law of 1884. "Code des Communes; ou Commentaire de la nouvelle loi municipale du 5 avril, 1884." Taulier, A. Grenoble, Bureau du Repertoire, 1884. 208 pp. 3 fr. 26

——. "Code des Conseillers Municipaux contenant le texte complèt de la loi du 5 avril 1884, etc." de Mailhol, D. Paris, Libraire Speciale Parisienne, 1888. 2 fr. 50 c. 27

——. "Commentaire de la loi du 5 Avril 1884 sur l'Organisation municipale." Grelot, Félix. Paris, Berger-Levrault et Cie., 1888. 2d ed. 5 fr. 28

——. "Etudes sur la loi municipale du 5 avril 1884." Ducroiq, Th. Paris Thorin, 1886. 5 fr. 29

——. "Loi Municipale, Commentaire de la loi du 5 avril 1884 sur l'organisation et les attributions des conseils municipaux, suivies du commentaire de la loi du 22 mars 1890 sur les syndicats de communes." Morgand, Léon. Paris, Berger, L. et Cie., 1896. 5th ed., 2 vols. 8vo, 1191 pp. 15 fr. 30

——. "Manuel pratique d'administration communale ou commentaire de la loi du 5 avril 1884, etc." Lescuyer, P. Paris, Giard et Brière, 1891. 8vo. 8 fr. 31

"Le Gouvernement local en France et l'Organisation du Canton." Bellangé, Charles. Paris, H. Didier, 1900. 8vo, 466 pp. 9 fr. 32

"Les Communes et la Liberté. Etude d'Administration Comparée." Block, Maurice. Paris, Berger-Levrault et Cie., 1877. 3 fr. 50 c. 33

"Les Institutions administratives en France et à l'Etranger. Des réformes à apporter à notre législation sur la commune et le département." Ferrand, Joseph. Paris, Cotillon et Cie., 1879. 6 fr. 34

"Life in a French Commune." Donald, Robert. Contemp. March, 1897. 35

"Local Government in France." de Franqueville, Le Comte. P. 283 "Local Government and Taxation." Editor J. W. Probyn. London & New York, Cassell, 1875. 5s. 36

Local and Municipal Government in France. Demombynes, Vol. II, pp. 53-122. See 2-11. 37

Municipal Government in France. Pp. 832-834. Vol. II. Palgrave. See 1-2. 38

France—*Continued.*

"Précis de Droit Administratif." Hauriou, Maurice. Paris, Larose et Forcel, 1891. 2d ed. 1900. 10 fr. 39

"Question des Sous-Préfets et la Réforme Administrative." R. Pol. e. Par. 25:330 (Aug. 10, 1900).

"Recueil annoté des Lois et Décrets sur l'Administration communale et departementale, comprenant les textes, spéciaux à l'administration de la ville de Paris et du département de la Siene." Souviron, Alfred and de Pontich, Henri. Paris, Muzard et fils, 1889. 8vo. 10 fr. 1893, 1328 pp. 40

"Art, Administration of, in France." Barthélemy, A. Am. Arch. 52:68 (1896). 42

Building Laws. "Manuel des Lois du Bâtiment." Lucas, Ach. Paris, Ducher et Cie., 1879. 5 vols. Part I, 738 pp.; Part II, 1516 pp. 40 fr. 43

Burial, Cemeteries, Cremation. "Les Cimetières au point de vue de l'hygiene et de l'administration." Bertoglio, L. Paris, Bailliere et fils, 1889. 12mo. 3 fr. 50 c. 44

——. "La Crémation en France 1797-1889." (avec 7 figures.) Salomon, Georges. Paris, Dentu, 1890. 8vo. 1 fr. 45

——. "Les Cimetières et la police des sepultures. Traité pratique de legislation." Fay, Emile. Paris, Berger, Levrault et Cie., 1889. 2d edit. 8vo. 3 fr. 46

Charity. Articles on "Assistance." Chevalier, Emile. Pp. 69-83 Vol. I, pp. 449-455 Vol. II, Say's "Dictionnaire d. Economie Politique." D'Echérac et Nielly. Pp. 199-209 Say's "Dictionnaire des Finances." 47

——. "Administration et Comptabilité des Bureaux de Bienfaisance." Thorlet, Léon. Paris, Berger-Levrault & Cie., 1889. 8vo, 333 pp. Paper, 5 fr. 48

——. "L'Assistance publique dans le Commune." Lefèvre, André, R. Municipale 3:1934 (Feb. 24, 1900). 49

——. "L'Assistance publique en France de 1889 à 1900." Monod, Henri. R. Gén. D'Administration 69:129 (Oct. 1900). 49a

——. "L'Assistance publique relativement a l'enfance." Marie, J. Paris, Berger-Levrault, 1892. 8vo. 2 fr. 50

——. "Bureaux de Bienfaisance." Lucipia, Louis. R. Municipale 2:1577 (Sept. 23, 1899). 51

——. "Charity in France and Belgium." Valleroux, Herbert. p. 135 "International Congress," vol. III, 1893. See 43-99. 52

——. "Des Secours a Domicile dans la ville de Paris." des Cilleuls, Alfred. Paris, Berger-Levrault, 1892. 8vo. 2 fr. 50 c. 53

——. "Mecanisme, Statuts, Reglements des Institutions de Bienfaisance. Economiste Pratique." Cacheux, Emile. Paris, Baudry, 1884. 40 fr. 54

——. "Public Assistance of the Poor in France." Balch, Emily Greene. Am. Econ. Assoc. Vol. VIII, Nos. 4 and 5. $1. 55

——. "Public Provision for Children in France." Balch, Emily Greene. p. 49 "International Congress," vol. V, 1893. See 43-99. 56

——. "Relief by Work in France." Grosseteste-Thierry. p. 207 "International Congress," vol. I, 1893. See 43-99. 57

——. "The French Municipal Farm for Indigents." Connor, Edward. Mun. World 8:123 (Aug. 1898). 58

——. "Traité Theorique et Pratique d'Assistance Publique." Derouin, H.; Gory. A.; Worms, F. Paris, Larose, 1900. 8vo, 2 vols., 824, 628 pp. Paper, 28 fr. 59

——. "L'Unification de la Representation des Pauvres et de l'Administration des Etablissements d'Assistance." de Tinguy du Pouet, J. R. Municipale 3:1616 (Oct. 7, 1899). 60

Council and Central Power. "Der Pouvoir central et des conseils municipaux." Lavergne, P. R. Gén. l'Administration 67:385 (April, 1900), 68:18 (May, 1900). 61

"Decentralization." Dreyfus, F. Revue Bleue March 27, 1897. 62

——. "Administrative Centralization and Decentralization in France." Young, J. T. Ann. Am. Acad. Pol. Sci. 11:24 (Jan. 1898). 63

——. "De la Décentralisation Communale." De Gand, Emmanuel. Paris, G. Lebrocquey, 1877. 50c. 64

——. "Décentralisation et Liberté dans la Commune." Imbart de la Tour, Jean. R. Pol. e. Par. 22:82 (Oct. 10, 1899), R. Municipale 3:1664 (Oct. 28, 1899), 3:1679 (Nov. 4, 1899), 3:1694 (Nov. 11, 1899). 65

France—*Continued.*

—. "La Décentralisation." Deschanel, Paul. Paris, Berger-Levrault et Cie., 1895. 2 fr. 50c. 66

—. "La Décentralisation. Projet de Réforme de la loi municipale du 5 avril, 1884." De Marcère Edouard. Paris, Larose et F. 2 fr. 67

—. "Necessité de Restituer au Pays ses Franchises Municipales." Germain, Félix. Paris, Guillaumin et Cie., 1871. 1 fr. 68

Elections, Municipal. "Les Elections Municipales." Gay, Ernest. R. Municipale 3:1785 (Dec. 23, 1899). 69

—. "Elections Municipales, Jurisprudence du Conseil d'Etat. Lois des 5 avril 1884 et 22 juillet 1889." Juillet, Saint Laeger. Paris, Berger, L. et Cie., 1900. 5th ed. 1 vol, 8vo, 470 pp. 5 fr. 70

—. "Les Elections Municipales du 6 Mai 1900." Fournier, Marcel. R. Pol. e. Par. 24:357 (May 10, 1900). 71

—. "Manuel électoral. Guide pratique de l'électeur et du maire, comprenant les élections municipales, départementales, législatives, etc." de Guer, Guerlin. Paris, Berger-Levrault et Cie., 1898. 7th ed. 12mo. 3 fr. 50 c. 72

—. "Manuel Formulaire des Elections à l'Usage des Préfets." Paris, Larose et Forcel, 1892. 3 fr. 73

—. "Petit Manuel Electoral." Cohn, L., Pasquier, Lucien. Paris, Sagnier, 1876. 60 c. 74

Expropriation. "L'Occupation définitive sans expropriation." Sanlaville, Ferd. Paris, Berger-Levrault, 1891. 8vo. 4 fr. 75

Finance, Municipal. "Budget Communal, Le." de Crisenoy, J. D. Say's Dictionnaire des Finances. Vol. I, p. 467-485. 76

—. "De l'Avenir des Biens communaux en France, et particulièrement dans les pays sectionnaires." Juillet, Saint Laeger. Paris, Berger-Levrault, 1882. 8vo. 2 fr. 50 c. 77

—. "Budget Municipal." Desbats, A. Gabriel. Paris, Berger-Levrault et Cie., 1895. 8vo, 450 pp. Paper 7 fr. 50 c. 78

—. Commune. de Crisenoy, J. De. Pp. 1113-1124, Vol. 1, "Dictionnaire des Finances." Say, Léon. 79

—. "Emprunts Municipaux en France et en Angleterre." Puibarand, Louis. Paris, Berger, L. et Cie., 1879. 8vo. 1 fr. 25 c. 80

—. "Essai sur les Finances Communales." Paul-Dubois, L. Paris, Perrin & Co., 1898. 16mo, 306 pp. 81

—. "Etude sur l'Administration des Finances municipales. Le municipe romain en droit romain. Les finances de la commune et la question des octrois." Blanc, Charles. Paris, Pichon & Cotillon, 1880. 8vo, 216 pp. 5 fr. 82

—. "Finances Communales: Etude Théorique et Pratique." Acollas, Renè. Paris, Giard & E. Brière, 1898. 12mo, 259 pp. Paper, $1. 83

—. "Französische Gemeindefinanzen." Pp. 733-766 R. v. Kaufmann's "Die französichen Finanzen." Leipzig, Bibliographischer Institut, 1882. 8vo, 882 pp. 25 M. Cl. 30 M. 84

—. "Local (Departmental und Communal) Besteuerung, Die." Pp. 137-144 Ergänzungsheft to Adolph Wagner's Finanzwissenschaft, Leipzig. Winter, 1896. 8vo, 168 pp. Also pp. 862-916 of his Finanzwissenschaft. 3 Thl. Leipzig. Winter, 1889. 8vo, 916 pp. 85

—. Octrois. (See Octrois below.)

—. "Régime Financier et Comptabilité des Communes. Traité Pratique Destiné aux Maires, etc." Thorlet, Léon. Paris, Berger, L. et Cie., 1889. 8vo. 5 fr. 86

—. "Situation Financière des Communes et les Centimes Communaux." Callet, Albert. R. Municipale 2:1499 (Aug. 19, 1899). 87

—. "Taxation, French System of." Covert, John C. Cons. Rep. 43:150 (June, 1900). 88

Fire Insurance. "La Caisse des Incendiés du départment de la Meuse, apropos des Projets de Création des Caisses départmentales d'Assurances." Salmon-Legagneur, Paul. Ref. Soc. 6:334 (Aug. 16 and Sept. 1, 1898), 6:434 (Sept. 16, 1898). 89

History. "Histoire de l'Administration en France et des progrès du pouvoir doyal depuis de régne de Philippe Auguste jusque là mort de Louis XIV." Dareste de la Chavanne, Antoine C. Paris, Guillaumin, 1848. 2 vols, 8 vo, 390 and 424 pp. 90

France—*Continued.*

——. "L'Administration municipale en XIIIe siecle dans les villes de consulat." Ramalho, A. Revue Generale d'Administration 55:407, 56:151 (1896). In pamphlet form. Paris, Berger, 1896. 2 fr. 50 c. 91

——. "L'Administration provinciale et communale en France et en Europe, 1785-1870." Hesse, A. Amiens, Prévost-Allo, 1871. 8vo. 92

——. "Du passé, du présent et le l'avenir de l'organisation municipale de la France." Champagnac, Emile. Saint-Flour, Vidal Rovet, 1843. 2 vols. 8vo. 10 fr. 93

——. "Histoire administrative des communes de France." Dupin, Claude François Etienne. Paris, 1834. 8vo. 94

——. "Institutions communales et provinciales et les corporations des pays de l'ancienne France a l'avénement de Louis XI." Paquet, 1860. 8vo. 95

Housing. "Die Wohnungsfrage in Frankreich." Raffalovich, Arthur. pp. 1-72, Hft. 31, Schr. d. Ver. f. Socialpolitik. 96

——. "Etude sur les Habitations à bon marché en France et à l'Etranger." Lucas, Charles. Paris, Aulanier & Co., 1900. 97

——. "Etude sur le projet de revision de la loi concernant les Logements insalubres." Jourdan, Gustave. Paris, Berger-Levrault et Cie., 1883. 8vo. 2 fr. 98

——. "Les Habitations Ouvrières." de Nouvoin, George. J. Economistes 42:333 (June, 1900). 99

——. "La Question des Habitations Ouvrières en France et à l'Etranger." Cheysson, E. Paris, G. Masson, 1887. 1 fr. 50 c. 100

——. "L'Intervention des Pouvoirs Publics dans le Mouvement d' Amélioration des Habitations à bon marché." Rostand, Eugène. Ref. Soc. 10:353 (Sept. 1, 1890). 2

——. "Legislation sur les Logements Insalubres. Traité Pratique." Jourdan, Gustave. Paris, Berger, L. et Cie., 5th ed., 1900. 8vo, 564 pp. 6 fr. 3

——. "Les Logements Insalubres, La loi de 1850." Laurent, Emile. Paris, Picard, 1882. 4

——. "Pouvoirs des Maires en Matière de Salubrité des Habitations." Jourdan, Gustave. Paris, Berger, L. et Cie., 3d ed., 1900. 12mo. 2 fr. 5

——. "The Modern Movement for the Housing of the Working Classes in France." Willoughby, William F. Yale R. 8:233 (Nov. 1899). 6

Lighting. "Concessions de Gaz et d'Electricite devant la juridiction administrative, 1823-1894, Recueil d'arrêtés des Conseils de Préfecture et d'arrêtés du Conseil d'Etat." Garnier, Léon et Paul Dauvert. Paris, aux bureaux du Journal des Usines à Gaz, 1894. 525 pp. 1 fr. 7

——. "Essai sur les Concessions d'eclairage et notamment sur la concurrence electrique." Cruveilhier, Jean. Paris, Berger-Levrault, 1900. 8vo. 3 fr. 8

——. "Monopoles communaux. Eclairage au gaz et à l'électricité, distribution d'eau et de force motrice, omnibus, tramways." Pilon, E. Paris, Giard et Brière, 1899. 8vo. 4 fr. 50c. 9

——. "The Future of Water Gas in France." J. Gas Light 76:86 (July 10, 1900).

Liquor Problem. "Alcoholism in France from a Sociological Point of View." Legrain. Revue Scientifique April 17, 1897. 10

——. "Financial Study of the Drink Question in France." Boulanger, E. Revue Politique et Parlementaire Jan. 10, 1897. 11

Municipal Control, etc. "Du Régime des Etablissements d'utilité publique." des Cilleuls, Alfred. Paris, Berger-Levrault, 1891. 8vo. 1 fr. 50 c. 12

——. (See also under Socialism, Municipal below.)

Octroi. Pp. 31-32. Vol. III, Palgrave. See 1-2. 13

——. "De la suppression des octrois et de leur remplacement." Guignard, A. Paris, Guillaumin, 1888. 6 fr. 14

——. "L'Impôt Communal sur le Revenu: Application à la Suppression des Octrois et a la Suppression des Centimes Additionnels." Malzac, Miranda. R. Pol. e. Par. 26:472 (Dec. 10, 1900). 15

——. "L'Impôt Communal sur le Revenu: Reforme des Contributions Directes et Octrois." Malzac, Miranda. Rev. Pol. e. Par. 18:360 (Nov. 10, 1898). 16

——. "Les Octrois municipaux, fondement économique, organisation administrative et financière, jurisprudence." Turquey, Elie. Paris, Giard et E. Brière, 1899. 8vo, 410 pp. 7 fr. 17

——. "La Suppression des Octrois." (History, present status in Paris and the

France—*Continued.*

provinces.) Veber, Adrien. Paris, Giard et Brière, 1899. 8vo, 234 pp. Also article by same writer, Rev. Soc. 28:156 (Aug. 1898); Grillot, P. R. Pol. e. Par. 19:543 (March, 1899). 18

——. "The Octroi System of France." Haussmann, Carl A. U. S. Consular Report No. 117, p. 314, 1890. 19

Pawnshops. "Monts de Piété en France." Vanlaer, Maurice. Paris, Guillaumin et Cie., 1895. 2 fr. 50 c. 20

Police. "Des Rapports des Municipalités et du Puvoir central en matière de Police." Miriel, Emile. Paris, Larose, 1897. 8vo, 130 pp. 21

——. "De l'Organisation de la Police (étude historique, theorique, et pratique) (thesis)." Pelatant, Leopold. Dijon, Berthond, 1899. 8vo, 307 pp. 22

——. "Manuel de Police administrative et judiciaire." Paris, Bureau du Journal des Commissaires de Police, 1877. 423 pp. 23

——. "L'Office de Police Judiciare." Thiriat, M. Paris, Giard et Brière, 1894. 3 fr. 24

——. "Repertoire de Police administrative et judiciaire. Législation et réglementation. Jurisprudence et Doctrine." Courcelle, Louis. Paris, Berger-Levrault, 1899. 8vo, 2793 pp. 60 fr. 25

——. "Traité de Police administrative et de Police judiciaire." Thorlet, Léon. Paris, Berger-Levrault, 1891. 8vo, 713 pp. 10 fr. 26

"Political Education in France and the Organization of the Republican Party." Fournier, M. R. Pol. e. Par. Jan. 10, 1897. 27

Population. "Accroissement de la population urbaine en France." de Castelleux, Comte. J. Economistes, 2d series, 13:372 (1857). 28

——. "Depopulation." Bernard, François. Pp. 692-697 Vol. I, Say's "Dictionnaire d'Economie Politique." 29

"Prostitution au point de vue de l'hygiène et de l'administration en France et à l'etranger, La." Reuss, L. Paris, Baillière et Fils, 1889. 636 pp. Bibliographie. 7 fr. 50 c. 30

——. "La Prostitution en France. Etudes morales et démographiques avec une statistique générale de la prostitution en France." Desprès, A. Paris, Bonchut, 1882. 8vo. 6 fr. 31

Public Works. "De l'Occupation temporaire en vue de l'execution des travaux publics, loi du 29 decembre, 1892." Bourcart, G. Paris, Pedone, 1895. 3 fr. 32

——. "Traite des Travaux communaux a l'usage des maires." Thorlet, Léon. Paris, Berger-Levrault et Cie., 1893. 8vo, 437 pp. 7 fr. 50 c. 33

——. "Des Travaux Publics Communaux." Bourgeois, Léon. Paris, Marescquainé, 1877. 2 fr. 50 c. 34

Sanitation. "Pouvoirs des maires en matière de Salubrité des Habitations." Jourdan, Gustave. Paris, Berger, L. et Cie., 3d ed., 1900. 12mo. 2 fr. 35

——. "La Reforme de l'Hygiene Publique." Dejamme, Jean. Paris, Berger-Levrault, 1885. 8vo. 1 fr. 36

Savings Banks. "Réforme des Caisses d' Epargne Francaises." Rostand, Eug. Paris, Guillaumin et Cie., 1891. 5 fr. 36a

——. "Le Projet de Réforme des Caisses d' Epargne." Moireau, M. A. Rev. d. deux Mondes 111:879 (1892). 37

Schools. "Les Ecoles et les Oeuvres municipales d'Enseignement (1871-1900). Lavergne, F. Paris, 1900. 4to. 37a

——. "Des Obligations et des Droits des communes en matière d'Ecoles." Dejamme, Jean. Paris, Berger-Levrault, 1889. 8vo. 2 fr. 38

Socialism, Municipal. "L'Oeuvre des Municipalités Socialistes." (Dijou, Paris Roubaix.) Marpaux, A. Le Mouvement Socialiste, April 1, 15, May 1, 1900. 39

——. "Le Socialisme Municipale." Bourdeau, J. R. Mondes July, 1900. 40

——. "Socialists in French Municipalities." Kerr, Charles H.; and Simons, A. M. Chicago, Charles H. Kerr & Co., 1900. 16mo, 31 pp. Paper, 5 cts. 41

——. "The Socialistic Municipalities of Northern France." Rowe, L. S. Yale R. 7:363 (Feb. 1899). 42

Streets. "Traité de la Voirie." Courcelle, Louis. Paris, Berger-Levrault, 1900. 8 vo. 7 fr. 50 c. 43

——. "Voirie vicinale et voirie urbaine: Lois, reglements, etc." Delaunoy, Léon. Paris, Frameries Dufrane-Friart, 1895. 3 fr. 50 c. 44

Transit Facilities. "L'Exploitation des Tramways en France." Jean, Charles.

France—*Continued.*

Génie Civil Nov. 4, 1899. 45

——. "Electric Railway Practice in France." Connett, A. N. St. Ry. J. 16:927 (Oct. 13, 1900). 46

——. "La Réglementation des Chemins de Fer d'Interest Local, des Tramways et des Automobiles." Doniol, A. Paris, Béranger, 1900. 8vo, 365 pp. Paper, 10 fr. 47

——. "Les Tramways, Législation et Jurisprudence les concernant." Guillaume, Eugène. Paris, Berger-Levrault, 1884. 8vo. 2 fr. 48

——. "Light Railways and Tramways in France." Ty. & Ry. World 9:146 (April 5, 1900).

——. "The Construction of Tramways in France." Conradi, H. Ty. & Ry. W. 9:594 (Dec. 6, 1900). 49

Franchises, Municipal. (See under **Municipal Control, Municipal Ownership** and **Finance.**)

Frankfort-on-the-Main.

Housing. "Die Wohnungen des Volkes zu Ende des 19 Jahrhunderts." Meissner, Alois. Allgemeine Bauzeitung 59:82 (1894). 50

——. Die Wohnungsverhältnisse in Frankfurt a. M. Flesch. pp. 57-93, Hft. 30, Schr. d. Ver. f. Socialpolitik. 51

Population. "Die Bevölkerung von Frankfurt a. M. in 14. u. 15. Jahrhunderts." Bücher, Karl. Sozial. stat. Studien, Tübingen, 1886. 8vo, 15 M. 52

"Sewage Disposal. Frankfort." Mason, Frank H. See 56-40a. Anon. Trans. Society of Engineers pp. 123-56 (1892). 53

——. "Sewerage of Frankfort-on-the-Main." Fuertes, James H. Engng. Rec. 41:347 (April 14, 1900). 54

Statistics. "Statistische Beschreibung der Stadt Frankfurt am Main und ihrer Bevölkerung." Bleicher, H. Frankfurt a. M. Hrsg. d. d. statistische amt, 1892. 4to, 288 pp. and many tables. A second volume was issued in 1893 containing statistics on the movement of population in 1891, 64 pp. and tables. 55

Street System. "Strassenanlage in Frankfurt a. M." Seestern-Pauly. Allg. Bauz. p. 287, 1868-69. 56

"Water Works of Frankfort, Germany, New." Fuertes, James H. Engng. Rec. 37:542 (May 21, 1898). 57

Frederick Town [Md.], History of. Shafer, Sara Andrew. See 1-4c. 58

Freiburg, Switz. Statistics of Population and Property. "Bervölkerungs-und Vermögensstatistik in der Stadt und Landschaft Freiburg (im Uechtland) um die Mitte des 15 Jahrhunderts. Buomberger, Ferdinand. Freiburg, Stämpfli & Co., 1900. 8vo, 147 pp. 59

Fresh Air Charities. (See **Charities,** also Charities under **New York.**)

"Friendly Visiting." (See under **Charities.**)

"Fulham [Eng.]; Past, Present and Future." Mun. J. 9:343 (May 4, 1900).

"Functions, Municipal; A Study of the Development, Scope and Tendency of Municipal Socialism." Maltbie, Milo Roy. Mun. Aff. 2:577-799 (Dec. 1898). 60

Galveston, Tex.

History, description and statistics of Galveston, Tex., in 1880. Census. See 1-7. 61

"Harbor Works, The Galveston." Sherman, W. J. J. Assoc. Engin. Soc. Dec. 1896. Engng News 37:162 (March 18, 1897) 62

"Water Supply of Galveston, Texas, Artesian." Peek, R. H. Engng. News 39:138 (March 3, 1898). 63

Garbage and Refuse Disposal. (See also **Streets.**)

See also Amsterdam, Antwerp, Berlin, Boston, Bradford (Eng.), Brooklyn, Brussels, Buffalo, Cambridge (Eng.), Canada, Chicago, Cincinnati, Cleveland, Columbus, Detroit, Edinburgh, Ghent, Glasgow, Gothenberg, Halifax (N. S.), Hamburg, Leyton, London, Lyons, Manchester (Eng.), Moline (Ill.), New Brighton (N. Y.), New Orleans, New York, Nice, Nottingham, Nuremberg, Paddington, Richmond, Rotterdam, St. Gall, San Francisco, Shoreditch, Syracuse (N. Y.), Toronto, Trieste, Torquay, United Kingdom, Wilmington (Del.), Zürich.

General References.

Collection and Disposal of Garbage. General articles on. Andrews, H. A. City Govt. 3:161 (Nov. 1897); Carpenter, Thomas B. Sanitarian 40:395 (May, 1898); Foster, Wolcott C. Engng. News 23:243 (1890); Gonden, H. J. City Govt. 7:51 (Sept. 1899), Public Improvements 1:273 (Oct. 1, 1899), pp. 13-19 in "Proceedings of the Third Annual Convention of the League of American Municipalities, 1899," 8vo, 138 pp. Paper; Hering, Rudolph. Engng. M. 13:392 (June, 1897), Engng. News 38:301 (Nov. 4, 1897), Engng. Rec. 36:558 (Nov. 27, 1897), Sanitarian 39:485 (Dec. 1897); Hill, G. Everett. Public Improvements 1:39 (June 1, 1899); Hosmer, G. W. Hrprs. Wkly. 38:711, 750 (1894); Jackson, J. San. Rec. 24:476 (Dec. 1, 1900); Kohnke, Quitman. City Govt. 5:66 (Aug. 1898); Livache, Ach. Bull. de la Soc. d'Encour. May 31, 1900; M'Cannel, W. J. City Govt. 9:62, 108 (Sept. Oct. 1900); Morse, W. F. City Govt. 3:158 (Nov. 1897), Prog. Age 15:555 (Nov. 15, 1897), Sanitarian 43:481 (Dec. 1899); Munn, Wm. P. City Govt. 2:6 (Jan. 1897); Pierce, Walter S. Sanitarian 39:299 (Oct. 1897); Reynolds, Arthur R. City Govt. 5:180 (Nov. 1898), Pro. Am. Soc. Mun. Imp. (5th yr.), Pt. II, p. 173 (Oct. 1898), Mun. Engng. 16:31 (Jan. 1899); Scherer, H. P. Mun. Engng. 19:331 (Nov. 1900), Cal. Mun. 3:116 (Dec. 1900); Walker, F. A. City Govt. 5:67 (Aug. 1898); Williams, H. S. Hrprs. Wkly. 38:835 (1894); Williams, J. J. City Govt. 7:49 (Sept. 1899), Public Improvements 1:267 (Oct. 1, 1899), pp. 12-13 in "Proceedings of the Third Annual Convention of the League of American Municipalities, 1899." 8vo, 148 pp. Paper; anon. Mun. and County Oct. 1895; Engng. Rec. 36:494 (Nov. 6, 1897); Engng. News 38:347 (Nov. 25, 1897); Mun Engng. 13:348 (Dec. 1897). 63a

"Garbage Disposal in American Cities." Engng. N. July 18, 1891, p. 51.

——. "Unsatisfactory Condition of Garbage Disposal in America, The." Engng. News 38:313 (Nov. 11, 1897), reprinted in Sanitarian 11:20 (Jan. 1898).

"Disposal of Sewage and Garbage in Foreign Countries." Special Cons. Rep. 17:13-221 (1899), see 56-40b. 64

"Economic Disposal of Towns' Refuse." Goodrich, W. Francis. London, 1900. 8vo, ill. Cl. $4.20. 65

"European Garbage Removal and Sewage Disposal." White, W. Howard. Trans. Am. Soc. Civil Engineers Dec. 1886. 66

"The Proper Disposal of Household Refuse and the Care and Cleanliness of Cellars." Cabeen (Mrs.) F. Von A. Philadelphia, Publications of the Civic Club, 1895. 67

"Animal Refuse, Disposal of." Boobbyer, Philip. San. Rec. 21:67 (Jan. 21, 1898). 68

Barren Island Garbage Disposal Plant. (See Garbage Disposal under **New York.**)

Burns and Engle Systems. "The Garbage Question." City Govt. 1:140, 2:50 (Dec. and Feb. 1896).

Collection. "Excreta, Removal of." Maxwell, Wm. H. San. Rec. 20:548 (Nov. 19, 1897). 69

——. "Motor Vans for Dust Collection." Mun. J. 9:561 (July 20, 1900), 9:682 (Aug. 31, 1900).

"Contracts, Garbage." (Editorial.) City & State 4:259 (Jan. 20, 1898).

"Cremation of Garbage." Morse, W. F. Am. Arch. 39:155 (1893); Sanitarian 43:323 (Oct. 1899). 70

——. "Cremation from a Sanitary Standpoint." San. Rec. 23:548 (June 23, 1899).

——. "Decarie Garbage Incinerator." City Govt. 4:137 (April, 1898).

——. "Destruction of Refuse." Anon. Engineer 35:55 (March 1, 1898); Engng. 67:458 (April 7, 1899).

——. "Garbage Crematories and the Destruction of Organic Matter by Fire." Kilvington, Samuel S. Pamphlet, Minneapolis, 1888. 71

Garbage and Refuse Disposal—*Continued.*

——. "Refuse Destructors." Maxwell, William H. San. Rec. 21:7 (Jan. 7, 1898), 21:33 (Jan. 14, 1898), 21:63 (Jan. 21, 1898), 21:88 (Jan. 28, 1898), 21:111 (Feb. 4, 1898), 21:137 (Feb. 11, 1898), 21:164 (Feb. 18, 1898), 21:193 (Feb. 25, 1898), 21:221 (March 4, 1898), 21:249 (March 11, 1898), 21:276 (March 18, 1898), 21:305 (March 25, 1898), 21:333 (April 1, 1898), 21:361 (April 8, 1898), 21:416 (April 22, 1898), 21:475 (May 6, 1898), 21:500 (May 13, 1898), 21:532 (May 20, 1898), 21:560 (May 27, 1898). 72

"Electric Supply and the Destruction of Town Refuse." Warden-Stevens, F. J. Architect (London) May 14, 1897. 72a

"Food of Plants and the Refuse of Towns, The Exact Relation Between the." Builder 30:817. 73

"Holthaus Garbage Disposal System." City Govt. 4:93 (March, 1898).

House Refuse: Collection and Disposal of. Kelso, W. W. San. Rec. 24:373 (Oct. 27, 1899); Maxwell, William H. San. Rec. 20:331 (Sept. 24, 1897), 20:382 (Oct. 8, 1897), 20:436 (Oct. 22, 1897); anon. Gesundheits-Ing. Oct. 31, 1898. 74

Incineration. (See under Cremation above, Utilization below.)

Lighting. Garbage as a fuel for electric light stations. (See under Utilization of Garbage below.)

"Municipalization of Waste." San. Rec. 20:635 (Dec. 10, 1897).

"Scavenging Disposal of Refuse." Mason, Charles. San. Rec. May 8, 1896. 75

"Sludge Destructor, The First." London 7:53 (Jan. 27, 1898).

Small Towns, Garbage Disposal in. Bishop, Edwin F. P. 61, Assoc. Ex. Hlth. Officers of Ontario xith meeting, 1894; Denham, Prierly. Eng. (Lond.) 90:192 (Aug. 24, 1900); Kelso, W. W. J. San. Inst. 6:338 (Sept. 1899); Kittilson, Edward. Mun. Engng. 18:160 (March, 1900); Maxwell, Wm. H. San. Rec. 20:604 (Dec 3, 1897); Watson, W. M. Can. Eng. Dec. 1897; anon. Engng. Times May, 1900, Elec. R. (Lond.) Sept. 21, 1900. 76

"Street Cleaning, Garbage Disposal and." Woodward, W. C. Engng. Rec. 40:458 (Oct. 14, 1899). 77

——. "Street Sweepings, Utilization of." San. Rec. 22:559 (Nov. 25, 1898).

——. "Value of Street Sweepings." Oldham, Edward A. Mun. Engng. 15:80 (Feb. 1899). 78

"Study of Refuse Disposal from a Municipal Standpoint, A Plea for the More Comprehensive." Woodward, William Creighton. City Govt. 7:50 (Sept. 1899), Public Improvements 1:264 (Oct. 1, 1899), pp. 19-22 in Proc IIId Annual Convention of the League of American Municipalities, 1899. 8vo, 148 pp. Paper. 79

Utilization of Refuse. Brookman, F. W. Rochdale, James Clegg, 1900. 8vo, 13 pp.; Morse, W. F. Sanitarian 42:221 (March, 1899), Mun. Engng. 16:303 (May, 1899); Terne, Bruno. J. Frankl. Inst. 136:221 (1893), Am. Arch. 41:185 (1893); anon. San. Rec. 20:282 (Sept. 10, 1897). 80

——. "Disinfection and Sterilization, The Utilization of City Refuse." Morse, W. F. Sanitarian 42:343 (April, 1899). 81

——. Electric Lighting, Garbage and. Campbell, A. H. Mun. Engng. 17:99 (Aug. 1899); Perry, N. W. Cassier's 13:99 (Dec. 1897); Tomlinson, Thomas. Engng. M. 7:522 (1894); anon. Engng. (Lond.) 64:19 (July 2, 1897); Engng. News 38:137 (Aug. 26, 1897); Mun. Rec. & Ad., Vol. I, No. 13, p. 5 (Sept. 4, 1897); Chambers, J. 14:588 (Oct. 1897). 82

——. Fuel, Use of Garbage as. Campbell, A. H. City Govt. 6:154 (June, 1899); de Segundo, Ed. C. Elec. R. (Lond.) 46:41 (Jan. 12, 1900); anon. Engng. Rec. 37:291 (March 5, 1898), 41:60 (Jan. 20, 1900). 83

——. House Refuse, Experience in the Municipal Utilization of. "Erfahrungen in der städtischen Hausmüllverwerthung." Koller, Theodor. Glaser's Annalen July 15, 1899. 84

——. "Is Dustbin Refuse a Fuel?" Humphreys, Norton H. Jour. Gas Lgt. 71:175 (Jan. 25, 1898). 85

——. Street Sweepings. (See above).

——. "Waste Liquids from Garbage Reduction, The Disposal of." Engng. Rec. 37:410 (May 7, 1898). 86

"Willoughby Refuse Destructor, The." Engineer 84:271 (Sept. 17, 1897).

Gas Works, etc. (See under **Lighting.**)

"**Gateshead [Eng.],** Overcrowded." Mun J. 9:741 (Sept. 21, 1900).

Geneva, Switz.

General References. "Higher Life of Geneva." Waurin, Louis. Outlook July 3, 1897. 87

Improvements for Geneva. "Die neuen Anlagen von Genf." Allg. Bauz. p. 325, 1858.

Municipal Government of Geneva. Demombynes. Vol. II, pp. 421-431. See 2-11. 88

Observations in Geneva, in Article, "The Swiss and Their Politics." Macy, Jesse. Am. J. Sociol. 2:25 (July, 1896). 89

Prostitution. "La Lutte contre l'exploitation et la règlementation du vice à Genève." Paris, 1900. 18vo, 322 pp. 3 fr. 90

Sanitation. "Rapports sur les Visites Sanitaires Instituée par le conseil Administratif de Genève pendant l'été 1884." Ferrière, F. Genève, H. Georg, 1885. 1 fr. 91

Transit Facilities. "Street Railways in Geneva." Ridgely, Benjamin H. Cons. Rep. 63:76 (May, 1900); anon. St. Ry. J. 16:695 (Aug. 4, 1900). 92

Genoa, Italy.

"Costituzione dell'Amministrazione Civica dell'Annesione dei Comuni Suburbani a tutto l'anno 1887: Contributo alla Storia del Municipio di Genova." Drago, Raff. Genova, Pagano, 1888. 103 pp. 93

"Genoa: The Superb City." Irish Monthly 27:119 (March, 1899).

George Junior Republic, The. (See Child Problem in Cities under **Charities**).

"Georgetown, Demerara, Electric Railway for." Swan, N.; Rankin, Norman S. St. Ry. R. 10:705 (Dec. 15, 1900). 94

Georgia.

"Street Railways in Georgia." Bennett, S. H. St. Ry. Jour. 14:82 (Feb. 1898). 95

——. "The Right of Consolidating Competing Street Railway Corporations in Georgia Upheld by the Supreme Court." St. Ry. J. 16:403 (April 21, 1900).

Germany.

Government, General References, Unclassified.

"German Cities." Ely, R. T. Congregationalist June 30, July 7, 1892.

——. "Government of German Cities." Shaw, Albert. Cent. 48:296, 380 (1894). (See also Chapters V and VI in his "Municipal Government in Continental Europe.") 96

——. "Handbuch der Verfassung und Verwaltung in Preussen und dem deutschen Reiche." Hue de Grais. Berlin, Springer 12th ed. 1898. 8vo, 584 pp. 97

——. "Lehrbuch d. deutschen Verwaltungsrechts." Loening, Edgar. Leipzig, Breitkopf u. Härtel, 1884. 8vo, 859 pp. 16 m. 98

——. "Lehrbuch d. deutschen Verwaltungsrechts." Meyer, Georg. Leipzig, Duncker u. Humblot, 2d ed. 1893. 2 vol. 669 and 428 pp. 16 m. 99

——. Local and Municipal Government in Germany. Demombynes. Vol. II, pp. 727-803. See 2-11. 100

——. "Municipal Activities in Germany." Hoffman, Frank S. Outlook 58:1063 (April 30, 1898). 1

——. "Municipal Government in Germany." Anon. Real Estate Rec. & Guide Dec. 28, 1895, p. 925; Mun. J. 9:977 (Dec. 14, 1900).

Bavaria. "Gemeinden und Gemeinde Verfassung." Seydel, Max, in III Abs. pp. 124-164, Vol. III. Marquardsen. See 2-9. 2

History of Administrative Law. (See under History below).

Prussia. "Handbuch der städtischen Verfassung und Verwaltung in Preussen." Steffenhagen, H. Berlin, Heine, 1888. II Bde. 317 and 320 pp. 7m. 60 pf. 3

——. "Die Organisations-gesetze der inneren Verwaltung in Preussen." (Especially p. 147 Städteordnung of 1853). Anschütz, Gerhardt. Berlin, Carl Heymanns Verlag, 1898. 657 pp. 4m. 4

——. "Die Preussischen Städteverfassungen." Kotze, Otto. Berlin, Gustav Hempel, 1879. 631 pp. 10m. 5

——. "Die Stadtverordneten. Ein Führer durch d. bestehende Recht." (Espe-

Germany—*Continued.*

cially Städteordnung). Jebens, A. W. Berlin, Springer, 1899. 294 pp. n. 3m. 6

——. "Die Städteordnung von 1853 in ihrer heutigen Gestalt." Zelle, R. Berlin, Springer, 3d ed. 1893. 86 pp. 1m. 7

——. "Die Städteordnung für die sechs östlichen Provinzen der preussischen Monarchie vom 30 Mai 1853. Mit Ergänzungen u. Erläuterungen." Oertel, O. Liegnitz, H. Krumbhaar, 2 Aufl., 1893. 460 pp. 8m. 8

——. "La Vie municipale en Prusse." Leclerc, M. Annales de l'Ecole Libre des Sciences Politique, Paris, 1888. 9

——. "Local Government in Prussia." Goodnow, F. J. Pol. Sci. Q. 4:648 Dec. 1889). 10

——. "Local Government considered in its historical development in Germany and England, with special reference to Recent Legislation on the Subject in Prussia." Morier, R. B. D. P. 357 "Local Government and Taxation." J. W. Probyn, editor. London & New York, Cassell, 1875. 5s. 11

——. Municipal Government in Prussia. pp. 834-836 Vol. II. Palgrave. See 1-2. 12

——. "Organization der preussischen Verwaltung nach den neuen reform Geset zen, historisch u. dogmatisch dargestellt." von Stengel, Karl Freih. Leipzig. Duncker u. Humblot, 1884. 8vo, 677 pp. 12m. 13

——. "Preussisches Stadtrecht: Verfassung u. Verwaltung d. preuss. Städte systematisch dargestellt." Leidig, Eugen. Berlin, Siemenroth u. Worms, 1891. 552 pp. 8m. 14

——. "Preussisches Verwaltungsrecht." (Pp. 113-179 Die Städteverfassungen). Bornhak, Conrad. Freiburg, Mohr, 1889-90. 2 vol., 498, 710 pp. Ergänsungsbd., 1893. 68 pp. 20m. 15

——. "Städteordnungen der preussischen Monarchie." Backoffner, R. Berlin, Marquardt u. Schenck. 250 pp. 2m. 16

Saxony. "Die sächsische revid. Städteordnung u. Städteordnung für mittlere und kleinere Städte v. 24 Okt. 1873." v. Bosse, H. A. 1898. 280 pp. 3m. 20 pf. 17

Württemberg. "Die Selbstverwaltung und ihre Organe." Gaupp, L. Abs. VI, pp. 171-198, Vol. III. Marquardsen. See 2-9. 18

"Abattoirs in German Cities, Municipal." Blashill, Thomas. Mun. J. & London 8:133 (Feb. 3, 1899). 19

Bavaria. (See under separate topics).

Building Laws. "Extracts from the Building Laws, Regulations and Forms of a number of German States and Cities." Pp. 516-562 J. Stübben's "Städtebau." Darmstadt, Bergsträsser, 1890. 561 pp. 32m. 20

——. "Das königlich sächsische Baupolizeirecht. Mit Erläuterungen." Leuthold, C. E. Leipzig, Rossbergsche Hof. Buchhandlung, 6th ed. 1895. 334 pp. 21

——. "Die Baupolizei, Ratgeber für das ganze Gebiet der Baupolizei nebst einem Anhang über Statik und Festigkeitslehre im Hochbau." Rau, Albert. Karlsruhe, Nemrisch, 1894. 121 pp. 4m. 50 pf. 22

——. "Polizeiverordnung betreffend die bauliche Anlage und die innere Einrichtung von Theatern, Circusgebäuden und öffentlichen Versammlungsräumen." Berlin, Heymann, 1891. 2d ed. 44 pp.

Burial, Cremation, etc. "Fortschritte der Feuerbestattung in Deutschland." Engerth, Karl. Vienna, M. Perles, 1892. 2d ed. Pamphlet 20 pp. 60 pf. 23

Charities. "Armenwesen." Loening, E. Pp. 855-925 of Gustav Schönberg's Handbuch d. Pol. Oekonomie. 3 Bd. "Finanzwissenschaft." Tübingen, H. Laupp, 1885. 24

——. "L'Assistance Publique en Allemagne. Législation, statistique en 1885." Le Roy, P. A. Paris, Berger-Levrault, 1889. 8vo. 3 fr. 50c. 25

——. "L'Assistance Publique en Prusse." Artibal, J. R. Municipale 3:1740 (Dec. 2, 1899). 26

——. "Count Rumford and his Work among the Poor in Bavaria." Gilman, Elizabeth. Char. R. 6:211 (May, 1897). 27

——. "Das Armenwesen in 77 deutschen Städten und einigen Landarmenverbänden." Böhmert, Victor. Leipzig, Duncker u. Humblot, 1893. 139 pp. 28

——. "Das Gestetz über den Unterstützungswohnsitz vom 6. Juni, 1870," (as amended March 12, 1894.) Koppe. Berlin, Carl Heymanns Verlag. 2 M. 29

——. "Ueberblick über d. Ergebnisse der Sommerpflege in Deutschland im Jahre, 1890. Erstättet von der Zentralestalle d. Vereins für Sommerpflege in Deutschland." Berlin, 1891. 30

Germany—*Continued.*

Civil Code, The Cities and the German. Schwartz, J. C. Preussische Jahrbücher Oct. 1896. 31

Conference of Municipal Officials, Prussian. "The Prussian Städtetag." Brooks, Robert C. Ann. Am. Acad. Pol. Sci. 13:264 (May, 1899). 32

Cremation (See under Burial above.)

"Department Stores in Germany, Special Taxation of." Mason, Frank H. Cons. Rep. 64:5 (Sept. 1900). 33

Elections. "Das Dreiklassensystem." Jastrow, Ignaz. Berlin, Rosenbaum u. Hart, 1894. 8vo, 157 pp. 3m. 34

——. "Die nationale Rechtsidee von den Ständen und das preussische Dreiklassenwahlsystem." v. Gneist, Rudolph. Berlin, Springer, 1894. 8vo, 272 pp. 4m. 35

——. "Die Staats und Gemeindewahlen im preussischen Staate." (Three class elections of 1893.) Evert, G. XVII Ergänzungshft. z. Zeitschrift d. kgl. preuss. statistischen Bureau, Berlin, 1895. 36

——. "La Loi Electorale municipale en Prusse." Le Mouvement Socialiste April 1, 1900.

——. "Political Clubs in Prussian Cities." Brooks, Robert C. Mun. Aff. 4:375 (June, 1900). 37

——. "Three Class Election System in Prussian Cities." Brooks, Robert C. Mun. Aff. 3:396 (Sept. 1899). 38

Expropriation in Saxony. "Die Gesetzgebung über Wegebau und Expropriation im Königreich Sachsen." Ludwig-Wolf, L. F. Leipzig, Rossbergsche Buchhandlung, 3d ed., 1892. 455 pp, 5m. 40 pf. 39

Finance. "Die deutschen Städte." Pp. 51-60 of Adolph Wagner's Finanzwissenschaft 3 Theil. Leipzig, Winter, 1899. 8vo, 916 pp. 40

——. "Einiges über die Einnehmenquellen der Städte des Regierungsbezirks Cassel." Straus, Carl. J. Nat u. Stat. 19:62 (Jan. 1900). 41

——. "Local Government and Finance in Prussia." Rice, C. Spring. Diplomatic and Consular Reports of Great Britain, No. 487, Miscellaneous Series, 1899. 23 pp. 1½d. 42

——. "Municipal Economy in Prussia." James, E. J. Nation Oct. 23, 1881. 43

——. "Städtische Finanzen im Mittelalter." Stieda, Wilhelm. Jr. Nat. Stat. III Folge, 17 Band. Pp. 1-54 (Sept. 1899). 44

Finance: Taxation. "Die progressive Einkommensteuer im Staats u. Gemeinde-Haushalt." Neumann, F. J. Leipzig, Duncker u. Humblot, Schr. d. V. f. Sozialpolitik, 1874. 8vo, 238 pp. 4 M. 80 pf. 45

——. "Das Kommunalabgabengesetz." Nöll, F. Berlin, Heymann, 1894. 8vo, 405 pp. 8 M. 46

——. "Das Kommunalabgabengestez vom 14 Juli, 1893." Luks, W. Berlin, Valen, 1894. 8vo, 76 pp. 1 M. 60 pf. 47

——. "Das Kommunalabgabengestez vom 14 Juli, 1893. Ausführungsanw. u Uebergangsbestimm. vom 10 Mai, 1894." Strutz. Berlin, Carl Heymanns Verlag, 3 Auflage. 3 M. 48

——. "Das preuss. Finanzreform durch Regulirung der Gemeindesteuern." v. Gneist, Rudolph. Berlin, Springer, 1881. 6m. 49

——. "Die Besteuerung der Gemeinden: Finanzwissenschaftliche Erörterungen." Friedberg, Robert. Berlin, Püttkammer u. Mühlbrecht, 1877. 8vo, 107 pp. 2m. 40 pf. 50

——. "Die bayrische Gemeindebesteuerung seit Anfang des 19 Jahrhunderts." Tröltsch, Walt. München, C. H. Bech, 1891. 8vo, 145 pp. 3m. 51

——. "Die Communalsteuerfrage, Ausarbeitung eines Referats im Verein für Sozialpolitik; mit einem Nachwort, der Verein für Sozialpolitik und seine Verbindung mit dem volkswirtschaftlichem Congress." Wagner, A. H. G. Leipsic, C. F. Winter, 1878. 8vo, 68 pp. 2m. 50 pf 52

——. "Die Communalsteuerfrage. Zehn Gutachten und Berichte." (Schr. d. Ver. f. Soz. Pol.) Leipsic Duncker u. Humblot, 1877. 8vo, 302 pp. 6m. 60 pf. 53

——. "Die deutschen Städtesteuern insbesondere die städtischen Reichssteuern im 12. u. 13. Jahrhundert." Zeumer, Karl. Leipzig, Duncker u. Homblot, 1878. 8vo, 162 pp. 4m. 54

——. "Die Gemeindebesteuerung und deren Reform." Bilinski, Leon Ritter von. Leipzig, Duncker u. Humblot, 1878. 325 pp, 8vo. 55

——. "Die persönlichen Steuern vom Einkommen verbunden mit Ertrags oder mit

Germany—*Continued.*

Vermögenssteuern, mit besonderer Beziehung auf Württembergische Verhältnisse." Neuman, Fr. J. Tübingen, Laupp, 1896. 8vo, 281 pp. 4m. 60 pf. 56

——. "Oeffentliche Kinderfürsorge." Lammers, Berlin, 1885. Pamphlet. 1m.

——. "Die gegenwärtigen Communalbesteurung im preussischen Staate, erlautert." Zimmer, Berlin, 1889. 50 pf.

——. "Die preussischen Kommunalanleihen mit besonderer Rücksicht auf eine Centralisation des Kommunalkredits." Kähler, W. Jena, G. Fischer, 1897. 8vo, 121 pp. 4m. 57

——. "Städtefinanzen in Preussen." Gerstfeldt. Leipzig, O. Wigand, 1882. 58

——. "Studien über d. weitere Entwickelung d. Gemeindesteuerwesens auf Grund d. preussischen Kommunal-abgabengesetzes vom 14 Juli, 1893." (Aus: Ztschr. f. d. ges. Staatswiss.) Adickes, F. Tübingen, Laupp, 1894. 8vo, 125 pp. 2m. 60 pf. 59

——. "Zur Gemeindesteuerreform in Deutschland, mit besonderer Beziehung auf sächsische Verhältnisse." Neumann, F. J. Tübingen, H. Laupp, 1895. 8vo, 303 pp. 6m. 60

Fire Departments. "Die kommunale Besteuerung der Feuerversicherungspolicen u. d. Heranziehung d. Feuerversicherungs-Anstalten zu den Feuerlöschkosten in Preussen." Herrfurth, L. Berlin, Heymann, 1895. 8vo, 56 pp. 1m. 61

——. "Geschichte der deutschen Feuerlösch- u. Rettungs-Anstalten." Fiedler, Ottomar. Berlin, Springer's Verlag, 1873. 8vo, 5m. 62

"Garbage Cremation in Germany." Engng. Rec. June 20, 1896. 63

History. "Bilder aus dem deutschen Städteleben in Mittelalter." Pfalz, F. Leipzig, Klinkhart, 1869. 2 vols. 8vo. 64

——. "Chroniken der deutschen Städte." Edited by Karl Hegel, Leipzig, 1862-96. 25 vols. 65

——. "L'Evolution des institutions communaux en Prusse et en Angleterre." Paul-Dubois, L. Rev. Pol. et Par. Aug. 1897. 66

——. "Geschichte der Städteverfassung in Deutschland." v. Maurer, G. L. Erlangen, Enkes Verlag, 1869-71. 4 vols., 8vo, 45m. 70 pf. 67

——. "Geschichte des preussischen Verwaltungsrechts." Bornhak, Conrad. Berlin, Springer, 1884-86. 3 vols. 8vo, 434, 336 and 350 pp. 25m. 20 pf. (A number of chapters devoted to city government.) 68

——. "Life and Times of Stein." (Reform of City Government in Prussia, 1808.) Seeley, J. R. Cambridge, 1878. 3 vols. 8vo. 69

——. "Markt und Stadt in ihrem rechtlichen Verhältnis. Ein Beitrag zur Geschichte der deutschen Stadtverfassung." Rietschel, S. Leipzig, Viet u. Co., 1897. 241 pp. 6m. 70

——. Origin. "Die Entstehung der deutschen Stadtgemeinde." Jastrow, Düsseldorf, 1889. Same title, Below, G. v. Düsseldorf, Voss & Co., 1888. 8vo, 127 pp. 3m. 71

——. Origin of Large Towns. Oppenheimer, F. Neue Deutsche Rundschau June, 1899. 72

——. Rhine Cities. "Geschichte der rheinischen Stadtkultur ihren Anfängen bis zur Gegenwart." Boos, Heinrich. Berlin, J. A. Stargardt, 1889. 3d vol, 8vo, 483 pp. 6m. 73

——. "Niederrheinisches Städtewesen vornehmlich im Mittelalter." Liesegang, Erich. Breslau, Koelner, 1897. 8vo, 758 pp. 74

——. "Die Entstehung des deutschen Städtewesens." Hegel, Karl. Leipzig, S. Hirzel, 1897, 8vo, 192 pp. 7 marks. Same title, Sohm, Rudolph. Leipzig, Duncker u. Humblot, 1890. 8vo, 120 pp. 2m. 40 pf. 75

——. "Städte und Gilden der germanischen Völker im Mittelalter." Hegel, Karl. Leipzig, Duncker u. Humblot, 1891. 2 vols, 8vo, 457 and 516 pp. 20m. 76

——. "Ursprung der deutschen Stadtverfassung." Heusler, Andr. Weimar, Böhlau, 1872. 8vo, 252 pp. 4m. 77

Housing. "Etude sur la Concentration des Habitations dans les Maisons Urbaines d'Allemagne." Cacheux, Emile. Soc. Fran. Hab. à bon marché, No. 2, p. 67 (1900). 78

——. "Die Grossstädtische Wohnungsnot." Walcker, Karl. Hamburg, in Zeit. und Streitfragen, 1892. 79

——. "Die Wohnungsnoth der ärmeren Klassen in deutschen Grossstädten." (Contains papers on housing conditions in principal German cities, indexed separate-

Germany—*Continued.*

ly, and propositions for reform.) Schriften d. Vereines für Sozialpolitik, Hft. 30, 31, 33. Leipzig, Duncker u. Humblot, 1886-7. 80

—. "Die Wohnungsnot in den Grossstädten u. d. Mittel zu ihrer Abhülfe." Albrecht, H. München, R. Oldenburg, 1891. 8vo, 127 pp. 2m. 50 pf. 81

—. "Die Wohnungsverhältnisse unserer ärmeren Klassen." Diestelkamp, L. Berlin, George & Fiedler (Soz. Zeitfragen.) 1885. 59 pp, 1m. 82

—. "Gebäudesteuer und Wohnungsfrage in Preussen." zur Nieden, Walter. Jahr. f. Gesetz. Ver. u. Volks. 24:1 (Erstes Heft). 83

—. "Homes of the German Working People." Smith, James Henry. U. S. Consular Report No. 98, pp. 173-257, 1888. 84

—. "Lösung der Wohnungsfrage, etc." Stolp, Hermann. Berlin, Rosenbaum and Hart, 1892. 8vo, 10 pp. 10 pf. 85

—. "Stadterweiterung in rechtlicher Beziehung." Meyer, E. Berlin, Heymann, 1893. 99 pp. n. 2m. 86

—. "Verbesserung d. Wohnungen." Schriften d. Zentralstelle für Wohlfahrtseinrichtungen Bd. I. Berlin, Heymann, 1892. 208 Abbildungen. 370 pp. 8 M.

—. "Wohnungsfrage vom Standpunkte der Armenpflege." Deutscher Ver. f. Armenpflege u. Wohlt. XI Heft. Leipzig, 1890.

—. "Wohnungsmietrecht und seine soziale Reform." Schneider, K. Leipzig, Duncker und Humblot, 1893, Staats u. Soz. wiss. Forschungen G. Schmoller, Hregbr. 170 pp. 3m. 60 pf. 87

Inns and Taverns. "Die Gast- und Schankwirtschaften in den deutschen Gemeinden mit mehr als 15,000 Einwohnern, November, 1898." Tenius, Gustav. Dortmund, 1899. 8vo, 109 pp. 88

Labor. "Sweating in Germany." Brooks, J. G. Am. J. Soc. Sci. 30:59 (1892). (See also under Unemployment below.) 89

Libraries. "Volksbibliothek u. Volkslesehalle eine kommunale Veranstaltung." Aschrott, P. F. Berlin, Leibmann, 1896. 66 pp. 1m. 90

Lighting. "Municipal Electric Light and Power in Germany." DuBois, James T. Consular Reports 56:546 (April, 1898). 91

—. "Photometry in Germany." Jour. Gas Lgt. 73:178 (Jan. 24, 1899).

—. "Statistik der Elektricitätswerke Deutschlands." Elektrotech. Zeitschr. July 7, 1898.

Local Independence in Prussia. "Les Libertés Locales en Prusse." Blondel, Georges. Ref. Soc. 8:776 (Nov. 16, 1899). 92

Paving. "Care of Asphalt Streets in Germany." Erdman, C. W. Cons. Rep. 15:686 (April, 1899.) 93

"Pawnbroking in Germany." Barnes, C. E. Cons. Rep. 61:371 (Nov. 1899); anon. J. Soc. Arts 47:860 (Oct, 13, 1899). 94

Police Administration. "Praxis der Polizei Verwaltung." Erdmann, Wald. Berlin, Heine, 1891. 12m. 95

—. "Die bestehende Organisation und die erforderliche Reorganisation der preussischen Polizeiverwaltung." Held, Otto. Berlin, F. Ludhardt, 1886. 228 pp. 96

—. "Sittlichkeitspolizei." Loening, E. Pp. 926-937 in Gustav Schönberg's Handbuch d. Pol. Oekonomie, 3 Bd. Finanzwissenschaft. Tübingen, H. Laupp, 1885. 97

Political Clubs in Prussian Cities. (See under Elections above.)

Population. "Growth of Cities in Germany and America." Hamilton, James H. Our Country 7:49 (March, 1898). 98

Prostitution. (See "Sittlichkeitspolizei" under Police above.)

Prussia. (See separate topics.)

"Public Works of German Municipalities." Washburn, Albert H. pp. 202-214 U. S. Consular Reports No. 149, Feb. 1893. 99

Sanitation. "Gesundheitswesen." Jolly, L. Pp. 805-855 in Gustav Schönberg's Handbuch d. Pol. Oekonomie, 3 Bd. Finanzwissenschaft. Tübingen, H. Laupp, 1885. 100

—. German Public Health Associations. Transactions of the, of Munich, Freiburg, Frankfurt and Strassburg. "Verhandlungen des Deutschen Vereins für oeffentliche Gesundheitspflege zu München, Freiburg i. B., Frankfurt a. M. and Strassburg." Deutsche f. Oef. Gesundheitspfl. p. 1, 1875; p. 10, 1886; p. 12, 1889; p. 20, 1890. 1

Germany—*Continued.*

"Savings Banks in Prussia, Report on." Rice, Spring. British Diplomatic and Consular Reports No. 478, Miscellaneous Series. London, Eyre & Spottiswoode, 1898. 16 pp. 1d. 1a

——. "Das deutsche Sparkassenwesen." Seidel, Max. Berlin, Heymann, 1896. I. Bd. Deutsche Staaten mit Ausnahme Preussens u. Elsass Loth. 8vo, 472 pp. 6m. 2

——. "Die Sparkassengesetzgebung Deutschlands. Sammlung der die sparkassen betr. Gesetze, Erlasse, Verordnungen, Verfügungen." Heyden. Essen, 1892. 3

——. "Die Sparkassenverhältnisse im Königreich Sachsen." Trautmann, A. Leipzig, Würzner in Comm., 1882. 8vo, 40 pp. 60 pf. 4

Saxony. (See separate topics.)

Schools. "Das Schulwesen und seine Verwaltung. Reform, etc." Zrödlowski, Ferd. Leipzig, Wigand, 1889. 2m. 5

——. Central Confirmation of Members Elected to School Boards. "Die Staatliche Bestätigung der Mitglieder städtischer Schul-deputationen nach Preussischem Recht." Preuss, Hugo. Ar. f. Oef. Rt. 15:202 (1900). 6

——. "Handbuch der Organisation und Verwaltung der städtischen Schuldeputation." Steffenhagen, H. Berlin, Heine, 1888. 7

——. "Preussisches Schulrecht." Leipzig, Osterwitz, 1890. 6m. 25 pf.

"Sewage Purification in Germany." San. Rec. 21:142 (Feb. 11, 1898).

"Small Holdings and Allotments in Germany." Tetley, William C. Land M. Feb. 1899. 8

"Statistisches Jahrbuch deutscher Städte." Breslau, Published yearly by M. Neefe and others. 1 Jahrgang, 1890, 247 pp.; 2 Jahrgang, 1892, 397 pp.; 3 Jahrgang, 1893, 378 pp.; 4 Jahrgang, 1894, 360 pp.; 5 Jahrgang, 1896, 360 pp.; 6 Jahrgang, 1897, 388 pp.; 7 Jahrgang, 1898, 416 pp.; 8 Jahrgang, 1900, 420 pp. Cost last annual edition 12m. 60 pf. (Principal topics discussed: Area, Location, Distribution of Space in cities, Meteorological and Natural Statistics, Land Ownership and Buildings, Building Operations, Dwellings and Separate Establishments, Water Supply and Water Works, Fire Protection, Savings Banks, Public and Private Pawnshops, Industrial Courts (Gewerbegerichte), Street Railways, Omnibusses, etc., Postal, Telegraph and Telephone Business, Employment Bureaus and Emergency Works, Cattle Yards and Slaughter Houses, Wages, Cost of Necessities of Life, Public Disinfection Plants, Street Cleaning and Watering, Sewage Disposal, Public Parks, Gardens and Show Places, Educational Statistics, Population, Municipal Taxes, Municipal Debts, Charity, Police and Justice, City Administration incl. Elections, Markets and Fairs.) 9

Theatres, Law of. "Deutsches Theaterrecht, unter Berücksichtigung der fremden Rechte, systematisch dargestellt." Opet, O. Berlin, S. Calvary & Co., 1897. 8vo, 519 pp. 10m. 10

Transit Facilities. Electric Tramways. Magee, Louis J. St. Ry. J. 15:647 (Oct. 1899); anon. Eng. (London) May 13, 1898. 11

——. "An Important German Rapid Transit Problem." St. Ry. J. 16:157 (Feb. 3, 1900).

——. "Statistik der Electrischen Bahnen in Deutschland." Elektrotech. Zeitschr. 19:12 (Jan. 6, 1898), 20:15 (Jan. 5, 1899), 21:14 (Jan. 4, 1900).

Water Supply. "Die Wasserversorgung der Städte im deutschen Reiche sowie in einigen Nachbarländern." Grahn, E. I Bd. Preussen, München, Oldenburg, 1898. 547 pp. 26m. II Bd. Bayern, same, 1899. 224 pp. 10m. 12

——. Bavaria. "Der Stand der Wasserversorgung in Bayern." Zeitschr. d. Ver. Deutscher Ing. Nov. 4, 1899.

——. "Filtration of Water in Germany, The." Beer, E. Engng. Rec. 42:416 (Nov. 3, 1900); Holman, M. L. J. Assoc. Engng Soc. 21:1 (July, 1898), Engng. Rec. 38:319 (Sept. 10, 1898), 40:32 (June 10, 1899). 13

Unemployment, Insurance against. "Grundzüge eines Reichsgesetzes zur kommunalen Versicherung gegen Arbeitslosigkeit." Sonneman, L. Ar. Soz. Gesetz. Stat. 10:800-805 (1897). 14

——. "Le mouvement économique et social en Allemagne; Statistique des sans-travail; les bureaux de placement; l'assurance contre de chômage." Block, Maurice. L'Economiste francais 2:241 (1895). 15

Württemberg. (See separate topics).

Ghent. Sewage and Garbage Disposal. See 56-40b. 16

Gill City Schools. (See under **Schools**).

Glasgow.

Government, General References and Unclassified. "Administration of Glasgow." City Govt. 2:131, 169 (May, June, 1897), 3:52 (Aug. 1897).

——. "Glasgow." Gordon, W. J. Leisure Hour, Oct. 1899; Shaw, Albert. Cent. 39:721, 792 (1890). (See also his "Municipal Government in Great Britain, pp. 69 to 145). 17

——. "Glasgow, its Municipal Organization and Administration." Bell, James, and James Paton. Glasgow, MacLehose & Sons, 1896. 4to, 426 pp. maps. (Contains several chapters on the history of the city, also Ch. IX, The Corporation: its Wealth and Activity; Ch. X, Magistrates and Jurisdictions; Ch. XI, Police; Ch. XII, Streets and Bridges; Ch. XIII, Sewers and Sewage; Ch. XIV, Fire Brigade; Ch. XV, Public Lighting; Ch. XVI, Cleansing; Ch. XVII, Baths and Wash Houses; Chs. XVIII-XXI, Health Department; Ch. XXII, The Improvement Trust; Chs. XXIII-XXV, Water Supply; Ch. XXVI, Corporation Gas and Electricity; Ch. XXVII, Municipal Markets; Ch. XXVIII, Tramways; Ch. XXIX, Clyde Navigation; Ch. XXX, Public Halls and Entertainments; Ch. XXXI, XXXII, Parks; Ch. XXXIII, Science and Art, Art Galleries and Museums; Ch. XXXIV, Education, Libraries; Ch. XXXV, Education, Schools; Ch. XXXVI, Education, Charity; Ch. XXXVII, Public Charity; Ch. XXXVIII, Religion. Review of the above, J. Gas Light, March 30, 1897. 18

——. "Glasgow of To-day." Hammerton, J. A. Temple M. Sept. 1899. 19

——. "Glasgow, a Model Municipality." Fisher, W. E. Garret. Fortn. 63:607 (1895). 20

"Architecture of Our Large Provincial Towns; Glasgow." Builder 75:21 (July 9, 1898).

Ferries. (See under Transit Facilities below).

Finance. "Municipal Work and Finance of Glasgow." Smart, W. Econ. J. 5:35 (1895). 21

——. "Taxation in Glasgow." Rowe, L. S. City and State 4:210 (Dec. 30, 1897); anon. Sci. Am. 77:5 (July 3, 1897); Ann. Am. Acad. Pol. Sci. 11:430 (May, 1898). 22

"Fire Brigade, Glasgow." Surveyor, Supp. July 27, 1900.

Garbage Disposal. See 56-40b. 23

——. "Garbage Disposal: The Cleaning of a Great City." McColl, Donald. City Govt. 9:37 (Aug. 1900). 24

——. "The Cleansing of Glasgow." Murdoch. Pp. 14-18 in "Pro. of the Assn. of Cleansing Superintendents of Great Britain, Sept. 6-9, 1899." Rochdale, James Clegg, 1900. 8vo, 63 pp. 25

——. "The Glasgow Corporation Farms." McFarlane. Pp. 19-22 in "Pro. of the Assn. of Cleansing Superintendents of Great Britain, Sept. 6-9, 1899." Rochdale, James Clegg, 1900. 8vo, 63 pp. 26

Harbor Facilities. "Glasgow Harbor Tunnels." Engng. Rec. July 30, p. 138, 1892.

——. "The Development of the Clyde." Mun. J. & London 8:1043 (Sept. 22, 1899).

"History of Glasgow from the earliest period to the present time." MacGregor, George. Glasgow & London, 1881. 8vo. (For other references on the city of Glasgow see p. 239 Gross' Bibliography of British Municipal History). See also No. 18 above). 27

——. "Records, The City of Glasgow and its." Scottish R. 32:249 (Oct. 1898).

——. "Town Society of Glasgow in the XVIII Century." Ch. IV, p. 127, Vol. I of H. G. Graham's "Social Life of Scotland in the XVIII Century." London, Adams & Chas. Black, 1899. 2 vols, 8vo, 265 & 272 pp. 28

"Housing of the Poor Problem in Glasgow." San. Rec. 19:477 (May, 1897).

——. "Dwellings for the Poorest." Mun. J. 9:961 (Dec. 7, 1900).

——. "Lodging-House Experiment at Glasgow, A Mixed." San. Rec. 22:241 (Sept. 2, 1898).

——. "Municipal Homes, Glasgow." Moore, F. W. Econ. R. 10:333 (July 16, 1900); Shone, J .F. Puritan May, 1900. 29

——. "Tenement Houses in Glasgow." Morse, Allen B. U. S. Consular Reports, Vol. XLVIII, No. 178, pp. 398-408. 30

"Industrial Schools, Neerbosch and Glasgow." Dooley, M. A. Arena 7:714 (1893). 31

Lighting. "Electricity v. Gas in Glasgow." Gas Wld. Sept, 2, 1899.

Glasgow.—*Continued.*

——. "Electric Lighting of the City of Glasgow, The." Elec. Eng. (Lond.) 32:410 (Sept. 21, 1900).

——. "Electric Power Supply, Glasgow." (Editorial). Am. Gas Light J. 68:863 (May 30, 1898).

——. "Glasgow Corporation, Gas Supply." J. Gas Light. 76:103 (July 10, 1900).

——. "The Light of Glasgow." Mun. J. 9:737 (Sept. 21, 1900).

——. "The New Electricity Works of the Glasgow Corporation." Elec. (Lond.) 45:765 (Sept. 14, 1900).

Lodging Houses. (See under Housing above).

"Municipal Ownership in Glasgow." Other Side 1:7 (July 8, 1899).

——. "Cities and Public Works—The Correct Story of Glasgow's Achievements." Watt, Robert. Am. Gas Light J. 41:891 (Dec. 4, 1899). 32

——. "Glasgow and its Municipal Industries." Smart, W. Q. J. Econ. 9:188 (1895). 33

——. "Municipal Monopoly in Glasgow." Polk, Jefferson F. Mun. Rec. and Ad. 2:348 (Feb. 26, 1898). 34

——. "The Glasgow Experiment in Municipal Ownership." Porter, Robert P. St. Ry. Rev. 8:294 (May 15, 1898). 35

Population, etc. (See under Statistics below).

"Sanitation in Glasgow, Practical." Fyfe, Peter. Sanitarian, Dec. 1896. 36

"Savings Banks of Glasgow." Meikle, William. U. S. Consular Report No. 122, 1890, pp. 513 to 530. 37

Settlements. "Toynbee House." Woods, R. A. The Congregationalist May 28, 1891. 38

Sewage Disposal at Glasgow. Fuertes, James H. Engng. Rec. 39:563 (May 20, 1899); Morse, A. B. See 56-40a; anon. Engng. Rec. p. 460, Nov. 23, 1895; see also 56-40b. 39

"Smoke Prevention in Glasgow." Fyfe, Peter. San. Rec. 26:267 (Sept. 28, 1900). 40

Statistics. "Vital, Social and Economic Statistics of the City of Glasgow, 1851-1891." Nicol, James. Glasgow, Maclehose, 1891. 8vo, 447 pp. 41

——. "Vital Statistics of Glasgow." Cowan, R. J. Statis. Soc. 3:257 (1840). 42

"Street Cleaning in Glasgow." Engng. News Aug. 30, p. 97, 1884.

"Telephone Inquiry, The Glasgow." Elec. Eng. 24:580 (Dec. 16, 1897).

Transit Facilities. "Street Cars in Glasgow." Taylor, Samuel M. Cons. Rep. 64:344 (Nov. 1900). 43

——. "Accounts Glasgow Tramway." Ty. & Ry. W. 9:364 (Aug. 9, 1900).

——. "Car Factory, Glasgow's Municipal." Mun. J. 9:597 (Aug. 3, 1900).

——. "Data on Electric-Power Generation, Glasgow." Engng. Rec. 39:478 (April 22, 1899).

——. "Electric Cars for Glasgow Tramways, New." Ry. World 6:335 (Nov. 1897).

——. "Electric Equipment of Glasgow Tramways." Anon. Ty. & Ry. W. 9:343 (Aug. 9, 1900); Elec. R. 37:364, 400 (Oct. 10, 17, 1900).

——. "Electric Traction; Special Reports to the Glasgow Corporation on latest Developments in." St. Ry. J. 15:39 (Jan. 1899).

——. "Electric Traction, Transition from Horse to, Tramway System of Glasgow." Taylor, B. Feilden's M. May, 1900. 44

——. "Electric Tramway Contracts, Glasgow." Ty. & Ry. World 8:357 (Sept. 7, 1899).

——. Electric Tramways, Glasgow. Parshall, H. F. Ry. World 8:149 (April 13, 1899); anon. St. Ry. J. 14:728 (Nov. 1898), Engng. Rec. 38:508 (Nov. 12, 1898), Mun. J. & London 8:42 (Jan. 12, 1899), Eng. 87:142 (Feb. 10, 1899), Ry. World 8:108 (March 9, 1899), St. Ry. Rev. 9:165 (March 15, 1899), Ty. & Ry. World 7:327 (Oct. 1898), 8:357 (Sept. 7, 1899), 8:474 (Dec. 7, 1899), 9:10, 116 (Jan. 11, March 8, 1900). 45

——. "Ferry Steamer with an Elevating Deck." Sci. Am. 82:216 (April 7, 1900).

——. "Functions of Modern Tramways and what Glasgow is doing Toward their Fulfillment." Young, John. St. Ry. R. 10:391 (July 15, 1900), Ty. & Ry. W. 9:455 (Sept. 6, 1900). 46

——. "Glasgow Commission, Report of the." (On Street Railway Traction and

Glasgow.—*Continued.*

Operation in American Cities). Electricity (London). Dec. 8, 1896. St. Ry. Jour. 13:28, 32, 36 (Jan. 1897).

——. "Municipal Tramways of Glasgow." Maltbie, Milo Roy. Mun. Aff. 4:40 (March 1900); anon. London 6:575 (July 8, 1897), Ry. World 7:88, 305 (March, Sept. 1898), 8:303 (Aug. 10, 1899), Elec. Eng. 28:87 (July 28, 1898), St. Ry. J. 15:247 (April, 1899), Mun. J. & London 8:781 (July 7, 1899), 9:543 (July 13, 1900). 47

——. "Rapid Transit in Glasgow." P. 22 "Rapid Transit in Foreign Cities." Parsons, W. B. New York, 1894. 49

——. "Subway, Glasgow District." (First Financial Results). Ry. World 6:367 (Dec. 1897).

——. "The Glasgow Subway and Cable Traction." Engineering Nov. 6, 1896.

——. Underground Railway, The Glasgow. Slater, P. F. Good Words June, 1899; Taylor, Benjamin. Cassier's 14:459 (Oct. 1898); anon. Eng. & Buil. Rec. Dec. 15, 1888, Engineer (Lond.) Dec. 4, 1896, Ry. World Jan. 1897, 6:247 (Aug. 1897), 7:294 (Sept. 1898), St. Ry. Rev. 8:158 (March 15, 1898). 50

——. "Wisdom in Glasgow." (Street Railways). Boston, Leaflet issued by the Citizens' Committee, 1897. 2 pp.

"Washhouses, Glasgow Corporation." Mun. J. & London 8:1215 (Nov. 10, 1899).

"Water Supply of the City of Glasgow, The." Taylor, Benjamin. Engng. M. 17:937 (Sept. 1899). 51

——. "A Prosperous Water Year at Glasgow." Mun. J. & London 8:761 (June 30, 1899).

——. "Water Works, Glasgow." Fuertes, James H. Engng. Rec. 38:205 (Aug. 6, 1898); Gale, James M. J. N. E. W. W. Assn. 14:240 (March, 1900). 52

Gloucester, Eng.

"Development of Gloucester, The Municipal." Mun. J. 9:617 (Aug. 10, 1900).

Electric Lighting at Gloucester, Eng. Anon. Engineer 84:222 (Sept. 3, 1897), Mun. J. 9:580 (July 27, 1900), Elec. R. (Lond.) 47:181 (Aug. 3, 1900).

Good City Government, Good Government Clubs. (See under **Government, General and Unclassified.**

Görz, Austria, Workmen's Colonies at. "Die Arbeiter-Colonie bei Görz." Romberg's Zeitsch. f. Pract. Bauk. p. 161, 1872.

Gothenburg, Sweden.

Gothenburg System. (See under **Liquor Problem in Cities).**

Sewage and Garbage Disposal. See 56-40b. 53

"Street Railways in Gothenburg." Bergh, Robert S. S. Elec. Rev. 35:285 (Nov. 2, 1898); St. Ry. Rev. 8:794 (Nov. 15, 1898); Cons. Rep. 58:571 (Dec. 1898), 60:572 (July, 1899). 54

Grade Crossings.

See also Chicago, Newton (Mass.).

"Crossing of Steam Railroads and Street Railways." (Review of Court Decisions.) St. Ry. R. 7:683 (Oct. 15, 1897). 54a

"Grade Crossings." Mordecai, Augustus. St. Ry. R. 10:80 (Feb. 15, 1900). 55

"Modern Problems of Grade Crossings." Webber, William O. Engng. M. 9:1034 (1895). 56

"Railway Crossings in Europe and America." Locke, Franklin B. Cent. 56:92 (May, 1898). 56a

Grand Rapids, Mich.

"City of Grand Rapids." Howard, Wm. Willard. Hrprs. Wkly. 35:186 (1891). 57

Government of Grand Rapids. Champlin, John W. Ann Arbor Studies in Finance and History, Michigan Univ., Article in Vol. I, No. 6. Dec. 1895. 25c. 58

History, Description and Statistics of Grand Rapids, Mich., in 1890. Census. See 1-7. 59

Lighting. "Municipal Central Station." Hart, Edward James. Elec. W. & E. 34:973 (Dec. 23, 1899). 60

Water Works. "The Grand Rapids Reservoir Accident." Cutcheon, Lewis D. *Engng. Rec.* 2:26 (July 14, 1900); anon. Engng. N. 44:25 (July 12, 1900). 61

Great Britain. (See under **United Kingdom**).

Greece.

History. "City-State of the Greeks and Romans, a Survey Introductory to the Study of Ancient History." Fowler, W. Warde. London, Macmillan, 1895. 332 pp. 12mo. $1. 62

Local and Municipal Government in Greece. Demombynes. Vol. I, pp. 819-824. See 2-11. 63

"Street and Other Railways in Greece." Woodbridge, J. E. Elec. World, April 17, 1897. 64

Grenoble, France.

"The Municipal or Co-operative Restaurant of Grenoble, France." Ward, C. Osborne. Dept. Labor U. S. No. 12, p. 594 (Sept. 1897). 65

Growth of Cities. (See under **Population**).

"**Guayaquil,** Notes on the Public Lighting of the Town of." Guichard, Charles. J. Gas Light. 76:1019 (Oct. 23, 1900). 66

Gymnasia, Public. (See also **Baths, Parks**).

"Public Gymnasia." Rothery, Guy Cadogan. San. Rec. 21:9 (Jan. 7, 1898); Quincy, Josiah. City Govt. 1:517 (Sept. 3, 1898), Sanitarian 41:303 (Oct. 1898), Ann. Am. Acad. Pol. Sci. 12:444 (Nov. 1898), N. Y. Educa. 2:135 (Nov. 1898). 67

Hackney, Eng. (See Lighting under **London**).

Hague, The.

"The Hague, Capitals at Play." Robinson B. Fletcher. Cassell's p. 398 (March, 1898). 68

"**Hale, Eng.** Sewage Disposal at." Surveyor 17:455 (April 27, 1900).

Halifax, Eng.

Electric Tramways of Halifax, England. Wilmshurst, T. P. St. Ry. Jour. 14:444 (Aug. 1898); anon. Ry. World 7:207 (July 7, 1898). 69

——. "Halifax Tramway Deputation in America." Whitlay, J. H. Ty. & Ry. World 9:39 (Jan. 11, 1900). 70

"Municipal Enterprise at Halifax." Mun. J. & London 8:262 (March 3, 1899).

Halifax, N. S.

"Attractions of Halifax." Tupper, E. Sherburne. Canadian M. 13:347 (Aug. 1899). 71

"Electric Railway System of Halifax, N. S."Archibald, E. M. St. Ry. J. 16:433 (May 5, 1900). 72

"Garbage Collection and Disposal at Halifax, N. S." Engng. N. 38:115 (Aug. 19, 1897).

Halle a S., Germany.

"Government of a Typical Prussian City: Halle a S." James, Edmund J. Ann. Am. Acad. Pol. Sci. 15:313 (May, 1900). 73

"Municipal Lighting in a Typical German City: Halle." James, Edmund J. Mun. Aff. 4:574 (Sept. 1900). 74

——. "Die stadtische Gas und Wasserwerke zu Halle a S." Gesund.-Ing. 22:326 (Oct. 31, 1899).

Hamburg.

General Works and Unclassified.

"Hamburg." Halstead, Murat. Cosmopol. 14:35 (1892). 75

"Hamburg: A City on Sand." Purdon, K. F. Ludgate May, 1900. 76

"Manchester and Hamburg." (A comparison). The Local Government Journal 27:46 (Jan. 15, 1898).

Charities. "Principles of Public Charity and Private Philanthropy in Germany." (Poor relief in Hamburg). Münsterberg, E. Am. J. Sociol. 2:589 (Jan., March, 1897). 77

Hamburg—*Continued.*

——. (See also under Pauperism below).

Garbage Disposal. "The Disposal of Garbage and Refuse, Hamburg, Germany." Hering, Rudolph. Engng. Rec. 36:446 (Oct. 23, 1897). 78

History. A Collection of Plans of the Harbors, Quays, Ships, Public Squares, Markets, from the Eleventh Century to the Present. "Hamburg's Vergangenheit und Gegenwart: Eine Sammlung von Ansichten der hervorragendsten und historich bekannten alten und neuen Hafen, und Quai-Anlagen, Schiffen, Platze, Markte, vom 11 Jahrh. bis die Gegenwart." Hamburg, Wendt & Co., 1897. 4to, 400 pp. M. 25. 79

——. Plan of Hamburg Before and after Fire of 1842. "Situationsplan vom Stadttheil Hamburgs vor dem Brande 1842 und nach demselben." Allg. Bauz. p. 20, 1865.

Housing. "Ueber die Wohnungsverhältnisse Hamburgs und die Versuche zur Besserung dieser Verhältnisse." Koch, G. pp. 41-57, Hft. 30, Schr. d. Ver. f. Sozialpolitik. 80

——. "Die Wohnungsverhältnisse Hamburgischer Unterbeamten im Jahre 1897." Pfingsthorn, Carl. Hamburg, Gräfe and Sillem, 1900. 8vo, 41 pp. Paper, 50 pf. 81

Pauperism and Prostitution in Hamburg. "Beitrage zur Geschichte des Pauperismus und der Prostitution in Hamburg." Schönfeldt, Gustav. Weimer, Verlag von Emil Felber, 1897. 8vo, 274 pp. Paper, 5 marks. 82

Reconstruction of the Embankment. "Die Neugestaltung des Wall-Terrains zwischen dem Damm- und dem Holsten-Thor zu Hamburg." Meyer, F. A. Deutsche Bauz. p. 481, 1879. 83

Sanitation. "Hamburg's New Sanitary Impulse." Shaw, Albert. Atlan. 73:787 (1894). (See also Chapt. VII, pp. 378-410, in his "Municipal Government in Continental Europe.") 84

"Sewage Disposal, Hamburg." Robertson, W. Henry. See 56-40a. 85

Transit Facilities. Electric Street Railways of Hamburg. Pitcairn, Hugh. Elec. R. 35:158 (Sept. 6, 1899), Engng. News 42:167 (Sept. 14, 1899), Cons. Rep. 61:218 (Oct. 1899); anon. Ty. & Ry. World 8:403 (Oct. 5, 1899). 86

Water Works. "Das Wasserwerk der Freien und Hansestadt, Hamburg." Meyer, F. Andreas. Hamburg, Meissner, 1894. 36 pp. Plates and tables. 6m. 87

——. "Hamburg Settling-Basins and Filters." Ch. XIII, p. 208. "Purification of Public Water Supplies." Hill, John W. New York, Van Nostrand, 1898. 8vo, 304 pp. $3. 88

——. "Die Reinigung der Hamburger öffenen Sandfilter in der Frostzeit." Gesund.-Ing. May 31, 1897.

——. "Water Filters at Hamburg, Germany, The New." Engng. Rec. March 18 and 25, 1893.

Hamilton, O.

"The Hamilton System." Jones, Ed. H. Prog. Age 17:69 (Feb. 15, 1899). 89

"Municipal (Lighting) Plant, The Hamilton, O." Gray, W. N. Elec. Eng. 24:5 (July 8, 1897). 90

Hamilton, Ont.

Lighting Plant, Electric. Domville, Percy. Can. Elec. N. 15:210 (Nov. 1898); anon. Mun. World 8:187 (Dec. 1898). 91

"Sewage Disposal by Chemical Precipitation at Hamilton, Ont." Barrow, E. G. Engng. News 37:63 (Jan. 28, 1897); Watson, W. M. Can. Eng. 6:39 (June, 1898). 92

Hammersmith, Eng.

"Electric Lighting in Hammersmith, Municipal." London 6:785 (Sept. 30, 1897).

——. "Modern English Central Station." Elec. World 30:668 (Dec. 4, 1897).

"New Sanitary Conveniences and Street Refuge, Hammersmith." Building News 58:901.

"Town Hall, Hammersmith's (Eng.), New." London 6:619 (July 15, 1897).

"**Hampton-on-Thames, [Eng.]** Sewerage and Sewage Disposal Works at." Kemp, J. Surveyor 18:456 (Oct. 19, 1900); anon. San. Rec. 24:343 (Oct. 20, 1899). 93

Hanley, Eng.

"Bacillite Sewage Disposal at Hanley, England." Engng. Rec. 39:385 (March 25, 1899).

Hanover, Germany.

City Plan. "Bebauungsplan der Stadt Hannover." Bokelberg. Zeitschr. d. Arch.-u. Ing.-Ver. zu Hannover, p. 240, 1889. 94

——. "Die Durchbruchs-Projekte für die Altstadt Hannover." Wallbrecht. Zeitschr. d. Arch.-u. Ing.-Ver. zu Hannover, p. 491, 1879. 95

——. "Grossstädtische Grundpläne und Hannovers Ringstrasse." Unger. Zeitschr. d. Arch.-u. Ing.-Ver. zu Hannover, p. 192, 1877. 96

"Street Railway System of Hanover, Germany." Johnson, Woolsey McA. Elec. W. & E. 34:572 (Oct. 14, 1899). 97

Harrisburg, Pa.

History, Description and Statistics of Harrisburg, Pa., in 1880. Census. See 1-7. 98

Water Supply of Harrisburg. Fire & W. 23:114 (April 9, 1898), 23:122 (April 16, 1898).

Harrogate, Eng. "A Municipal Spa." Mun. J. 9:537 (July 13, 1900).

Hartford, Conn.

"History of Hartford, Conn." Talcott, Mary C. See 1-4a. 99

——. History, Description and Statistics of Hartford, Conn., in 1880. Census. See 1-7. 100

"Objections to Public Work for Unemployed in Hartford, Conn." McCook, J. J. Char. R. 3:236 (1893). 1

Street Railway Co., The Hartford, Conn. Elec. Eng. 24:112 (Aug. 5, 1897).

"**Hastings [Eng.]**, All About." Gray, George G. Mun. J. 9:199 (March 16, 1900). 2

Havana, Cuba.

"Financial Conditions of the City." Ann. Am. Acad. Pol. Sci. 16:159 (July, 1900).

"Gas Works of Havana." Am. Gas Light J. 68:10 (Jan. 3, 1898).

Sanitary Conditions and Improvement of Havana. Gould, E. Sherman. Engng. News 42:68 (Aug. 3, 1899); Ludlow, William. Engng. News 42:242 (Oct. 12, 1899); Sternberg, George M. Cent. 56:578 (Aug. 1898); anon. Engng. Rec. 39:114, 155 (Jan. 1899); 40:426 (Oct. 7, 1899); Engng. News 41:28 (Jan. 12, 1899); Sanitarian 43:66 (July, 1899); Hrprs. Wkly. 44:588 (June 23, 1900). 3

——. "Colonel Waring on the Sanitation of Havana." Hill, G. E. Forum 26:529 (Jan. 1899). 4

"Sewerage of Havana." Fire & W. 26:59 (Feb. 25, 1899), 26:70 (March, 4, 1899).

Transit Facilities. "Electric Railways of Havana." St. Ry. J. 16:724 (Aug. 4, 1900).

Haverhill, Mass.

"Gas Case, The Haverhill." Chase, John C. Ind. 52:479 (Feb. 22, 1900). 5

"Socialism in the Saddle." Mun. & Ry. Rec. 4:21 (Jan. 15, 1899).

"**Havre**, Sewage Disposal in." Chancellor, C. W. U. S. Cons. Reports, Vol. XLVII, No. 173, p. 148, Feb. 1895. 6

Heidelberg, Ger. Housing. "Die Heidelberger Wohnungsenquête." May, Max. Zeit. für Social. 3:123 (Feb. 1900). 7

High Buildings. (See **Building Laws**).

Higher Life of Cities. (A series of articles in the Outlook, 1895-7 on Boston, Chicago, New Orleans, New York, St. Louis, Berlin, London, Paris and Geneva. See under these cities. Also one article by Theodore Roosevelt on "Higher Life of American Cities." Outlook 52:1082, 1895).

Highway Improvements. (See under **Streets**).

LIBRARY OF THE UNIVERSITY OF CALIFORNIA

History of Municipalities, Municipal Law, etc. (See also **Population**).

See also Albany (N. Y.), Annapolis, Athens, Atlanta, Baltimore, Basel, Belgium, Bern, Birmingham, Boston, Bremen, Brooklyn under New York, Buffalo, Cambridge (Mass.), Cape Cod Towns, Charleston, Chattanooga (Tenn.), Chicago, Cincinnati, Cleveland, Columbus, Concord (N. H.), Constantinople, Coventry (Eng.), Deerfield (Mass.), Denver, Des Moines, Detroit, Dundee, Elmira, England under United Kingdom, Fall River (Mass.), Florence, France, Frankfurt, Frederick Town (Md.), Galveston (Tex.), Germany, Glasgow, Grand Rapids (Mich.), Great Britain under United Kingdom, Greece, Hamburg, Harrisburg, Hartford (Conn.), Indianapolis, Jersey City, Knoxville (Tenn.), Leicester, Leipsic, Little Rock (Ark.), Lombardy, Louisville (Ky.), Lowell (Mass.), Lynn (Mass.), Manchester (Eng.), Manchester (N. H.), Memphis (Tenn.), Milwaukee, Minneapolis, Mobile (Ala.), Montgomery (Ala.), Nashville (Tenn.), Newark (N. J.), Newburg (N. Y.), New Haven (Conn.), New Orleans, Newport, New York, Norfolk, Omaha, Oxford (Eng.), Paris, Paterson (N. J.), Philadelphia, Pittsburgh, Plymouth (Mass.), Portland (Me.), Princeton (N. J.), Providence, Richmond, Rochester, Rutland (Vt.), St. Augustine (Fla.), St. Louis, St. Paul, Salem (Mass.), Salt Lake City, San Francisco, Saratoga (N. Y.), Savannah, Schenectady (N. Y.), Syracuse, Tarrytown (N. Y.), Toledo (O.), Topeka (Kas.), Troy (N. Y.), United Kingdom, Venice, Vicksburg (Miss.), Washington (D. C.), Wheeling (W. Va.), Williamsburg, Wilmington (Del.), Wilmington (N. C.).

"L'Administration muncipale au XIIIe siecle dans les villes de Consulat." (Cities having foreign merchant quarters under special regulation). Ramalho, A. Paris, Berger, Levrault & Cie., 1896. 8vo, 2 fr. 50c. 8

City, Ancient, Mediaeval and Modern. Pp. 290-296, Vol. I. Palgrave. See 1-2.

"Economic Policy of Mediaeval Towns, The." Treub, M. W. F. Vragen des Tijds July, 1899. 9

"Evolution of Cities." Réclus E. Contemp. 67:246-264, Living Age 204:707 (1895). 10

Free Towns. Pp. 140-143. Vol. II. Palgrave. See 1-2. 11

Gilds. Pp. 209-213. Palgrave. Vol. II. See 1-2.

Hanseatic League. Pp. 281-286. Vol. II. Palgrave. See 1-2.

Municipal Law. "Droit Municipal dans l'antiquité." Bechard, Ferdinand. Paris, A. Durand, 1860. 8vo, 8 fr. 12

——. "Droit Municipal au Moyen-Age." Bechard, Ferdinand. Paris, Durand, 1862. 2 vol. 8vo, 15 fr. 13

——. "Droit Municipal dans les Temps modernes." (XVIe et XVIIe siècles). Bechard, Ferdinand. Paris, Durand, 1866. 8vo, 8 fr. 14

"Origin of Cities and Towns." de Molenari, G. Vol. 1, pp. 468-73. Lalor's Cyclopedia. 15

——. "L'Origine des Villages à Banlieue morcelée et des Domaines agglomérés." von Brandt, Alexander. Ref. Soc. 6:645 (Nov. 1, 1898). 16

——. "Théories des Villes. Comment les villes se sont Formées." Gén. de L'Arch. p. 292, 1854.

——. "Ueber die Entstehung der Städte der Alten." Kuhn, Emil. Liepsig, Trübner, 1878. 8vo, 10m. 17

——. "Die inneren Wanderungen und das Städtewesen in ihrer entwicklungsgeschichtlichen Bedeutung." Ch. IX, p. 349 in Karl Bücher's Entstehung der Volkswirtschaft. Tübingen, H. Laupp, 1898. 8vo, 395 pp. 5m. 60 pf. 18

Real Estate in Cities During Middle Ages. "Etude sur la Propriété Foncière dans les villes du Moyen Age." des Marez, Guillaume. University of Ghent, 1898. 8vo, 392 pp. 19

"The City: Ancient, Mediaeval, Modern, Ideal." Ch. VIII, pp. 222-251. Frederic Harrison's "The Meaning of History." New York, Macmillan, 1894. 8vo, 482 pp. $2.25. 20

"The Ancient City. A study on the religion, laws and institutions of Greece and Rome." de Coulanges, Fustel. (Trans. by Willard Small.) Boston, Lee & Shepard, 9th ed., 1896. 8vo, 529 pp. 21

"The City in History." Rowe, L. S. Am. J. Sociol. 5:721 (May, 1900). 22

"**Hoboken's [N. J.]** New Library Building." City Govt. 2:77 (March, 1892).

Holland.

General Works and Reference Books.

"Die Gemeindeverwaltung." Hartog, L. de. IV. Abtheilung, pp. 59-61. Vol IV. 1, 4-6. Marquardsen. See 2-9. 23

Local and Municipal Government in Holland. Demombynes, Vol. I. pp. 295-319. See 2-11. 24

"The Principal Cities of Holland." Ragan, H. H. Chaut. 27:227 (June, 1898). 25

"The Provincial and Communal Institutions of Belgium and Holland." de Laveleye, Emile. P. 235, "Local Government and Taxation." J. W. Probyn, editor. London & New York, Cassell, 1875. 5s. 26

"Art in the Netherlands, Municipal." French, Allen. New Eng. M. 18:267 (May, 1898). 27

Charities. "Poor Colonies of Holland." Gore, J. H. Chaut. Feb. 1896. 28

"Electoral Districts, Dividing Cities and Provinces into." (Holland). Van Gilsie, J. A. Vragen des Tijds Nov. 1896. 29

Lighting. "Prepayment Meters in Holland." Bolsius, P. J. Gas Light 76:766 (Sept. 25, 1900), Prog. Age 18:497 (Nov. 15, 1900). 30

——. "Electrical Works in the Netherlands." Cons. Rep. 60:571 (July, 1899).

Savings Banks. "Les Caisses d'Epargne en Hollande." Riedel, J. B. Jour. des Economistes 47:394 (1889). 31

"**Hollister, Cal.**, Water Works at." Grunsky, C. E. Engng. News 37:274 (May 6, 1897). 32

"**Holyoke [Mass.]**, The City of." Kirtland, Edwin L. New Eng. M. 17:715 (Feb. 1898). 33

Home Rule for Cities, State Administrative or Supervisory Boards, Special Legislation, Relation of City and State Generally.

(See also under **Referendum.**)

See also England, Iowa, Massachusetts, New York.

Home Rule for Cities, Articles on. Goodnow, Frank J. Pol. Sci. Q. 10:1 (1835); Hale, E. E. Cosmopol. 16:735 (1894); Hotchkiss, Wm. Horace. R. of Rs. 9:682 (1894); Low, Seth. Address at Brooklyn, Oct. 6, 1882; McMath, Robert E. Mun. Engng. 19:205, Am. Gas Light J. 73:448 (Sept. 1900); Miller, Joseph D. Am. J. Pol. 4:25 (1894); Palmer, Clarence S. Am. M. Civics 9:56 (1896); Parsons, Frank. Prog. Age 16:406 (Sept. 1, 1898). 34

——. "Home Rule for Cities." Pp. 387-468 in "The City for the People or The Municipalization of the City Government and of Local Franchises." Parsons, Frank. Philadelphia, C. F. Taylor, 1900. 8vo, 597 pp. Cl. $1. 35

——. "Home Rule for our American Cities." Oberholtzer, Ellis P. Ann. Am. Acad. Pol. Sci. 3:736 (1893). 36

——. "Municipal Home Rule, a Study in Administration." Goodnow, Frank J. New York and London, Macmillan, 1895. 12mo, 283 pp. $1.50. 37

"Referendum on City Charters." Ch. XIV. pp. 335-368 of Ellis P. Oberholtzer's "Referendum in America," edition of 1900; Ch. IV, pp. 86-104, edition of 1893. See 60-99. 38

"Special Legislation Unconstitutional." Shauck, John A. Public Policy 2:114 (Feb. 24, 1900). 39

——. "The Evils of Special Legislation and the Remedy." Garfield, James R. Public Policy 2:222 (April 7, 1900). 40

State Boards. "A State Municipal Board." Jenks, J. W. Mun. Aff. 2:411 (Sept. 1898). 41

——. "The Relation of the City and the State." Goodnow, F. J. Mun. Aff. 1:689 (Dec. 1897). 42

——. "State Board of Municipal Control." Holls, Frederick William. p. 226, Proc. Third Natl. Conf. for Good City Govt., 1896. See 6-18c. 43

——. "State Supervision for Cities." Commons, John R. Ann. Am. Acad. Pol. Sci. 5:865 (1895); Grant, John H. Ann Arbor Studies in Finance and History, Michigan Univ. Article in Vol. II, No. 4. 25c. 44

"Uniformity of State Laws Pertaining to Municipal Governments." Johnson, J. A. Prog. Age 15:456 (Oct. 15, 1897); City Govt. 3:120 (Oct. 1897). 45

"Unmixed Self Rule for Cities." Fassett, Jacob Sloat. Our Day 7:411 (1891). 46

Home Work. (See under **Sweating.**)

"**Honduras,** The Mysterious City of." Gordon, Geo. Brydon. Cent. 55:407 (Jan. 1898). 47

"**Hong Kong,** Sanitary Conditions in." Alford, Robert C. Engng. Rec. 42:370 (Oct. 20, 1900). 48

"**Honolulu** and its Street Railways." Cicott, Frank X. St. Ry. J. 14:725 (Nov. 1898). 49

Hornsey, Eng. (See under **London.**)

Hospitals. (See Hospitals under **Charities.**)

Housing of the Working Classes and of the Poor in Cities, Lodging Houses, Tenement Houses, Slums, Etc. (See also **Population.**)

See also Basel, Belfast, Belgium, Berlin, Bochum, Bolbec, Boston, Bradford, Brandeis (Aus.), Brussels, Bury (Eng.), Chemnitz, Chicago, Clichy, Copenhagen, Crefeld, Cronenberg, Dortmund, Dublin, Edinburgh, Elberfeld, England see under United Kingdom; Epernay, Essen, France, Frankfort a. M., Glasgow, Germany, Görz, Hamburg, Heidelberg, Hull, Italy, Küchen i. W., Leeds, Leipsic, Liverpool, London, Manchester, Marburg i. Steiermark, Merseburg (Ger.), Milan, Mülhausen, Munich, Naples, Newcastle, New York, Nottingham, Osnabrück (Ger.), Paris, Philadelphia, Richmond, Salford, Scotland, Shoreditch, Southampton, Strassburg, Stuttgart, Switzerland, Tours, Ulm, United Kingdom, United States, Vienna, Walthamstowe (Eng.), Washington, Weissenfels (Ger.), West Ham under London.

GENERAL REFERENCES.

Owing to the extent of the literature on housing, general and unclassified works and articles have been listed (1) according to language, (2) according to date of issue, as follows:

American and English Books and Pamphlets, 1866-1900; pp. 99-100.
American and English Articles, 1813-1900; pp. 100-2.
Foreign Books and Pamphlets (French, German, Dutch, etc.), 1879-1900; pp. 102-3.
Articles, 1863-1900; p. 103.

References on particular phases of the housing problem follow in alphabetical order.

American and English Books and Pamphlets, 1866-1900.

"Homes of the Working Classes, with suggestions for improvement." Plates and plans. Hole, James. London, Longmans, 1866. 8vo. Cl. 7s. 6d. 50

"Dwellings of the Laboring Classes, their arrangement and construction." Plans, elevations, etc. Roberts, H. London, 6th ed., 1867. 8vo. 51

"Report on Dwellings Characterized by Cheapness combined with the conditions necessary for health and comfort." Chadwick, Edwin. Pp. 239-317, Vol. III of Reports presented to Parliament on the Paris Universal Exhibition. London, Eyre and Spottiswoode. 1868. 52

"Improved Dwellings for Laboring Classes, the need and way to meet it on strict commercial principles." White, Alfred T. New York, Putnams, 1879. 27 pp. Plans 30 cts. 53

"Artizans' and Labourers' Dwellings." Spencer, Edward. London, 1881. 54

"Dwellings of the Poor." Loch, C. S. London, Longmans, 1882. 55

"Social and National Influence of the Domiciliary Condition of the People." Rawlinson, R. London, 1883. 56

"Housing of the Poor in Towns." Chamberlain, Joseph. Chapter IV, p. 62 of "The Radical Program." London, Chapman & Hall, 1885. 328 pp. 57

"Re-housing of the Industrial Classes." Solly, H. London, Swan, S. & Co., 1889. 6d. 58

"The Housing of the Poor." Millington, F. H. London, Cassell & Co., 1891. 8vo, 104 pp. 1s. 59

"Examples of Labourers' Cottages. With plans for Improving the Dwellings of the Poor in Large Towns." Birch, J. Edinburgh, Blackwood & Sons, 1892. 65 pp. 30 plates. 7s. 60

Housing of Working Classes, Etc.—*Continued.*

"White Slaves, or the Oppression of the Worthy Poor." Banks, Louis A. Boston, Lee & Shepard, 1892. $1.50. 61

"Housing of the Poor in American Cities." Reynolds, Marcus T. Am. Econ. Assoc. 8:139 (1893). Separate, paper, $1. (Valuable bibliography.) 62

"Dwellings of the Poor and Weekly Wage Earners in and around Towns." Worthington, T. Locke. London and New York, Swan, S. & Co., 1893. 164 pp. $1. 63

"Housing of the Working Classes." Bowmaker, Edward. London, Methuen & Co., 1895. 186 pp. 2s. 6d. 64

"Housing of the Working People, The." Gould, E. R. L. Eighth Special Report of the Bureau of Labor, prepared under the direction of Carroll D. Wright. Washington, Government Printing Office, 1895. 461 pp. 65

"Housing the People." Reid, H. G. Paisley, A. Gardner, 1895. 69 pp. 1s. 66

"Housing of the Laboring Classes." Boulnois, H. P. St. Bride's Press, 1896, 2d ed., 8vo, 72 pp. 15s. 67

"The Dwelling House." Poore, George Vivian. New York, Longmans, Green & Co., 1897. 12mo, 178 pp. Cl. $1.25. 68

"The Housing of the Poor." Beachcroft, R. Melville. L. C. C. pamphlet, 1899. 69

"The Housing of the Poor." Hand, J. E. p. 113 "Good Citizenship" edited by J. E. Hand. London, Geo. Allen, 1899. 474 pp. 70

"Better Homes for the Workers, and How to Obtain Them." Aldridge, H. R. Land Nationalization Society Tract No. 80, 1900. 71

"Housing of the Working Classes in Urban Districts." Cranfield, Sydney White, and Potter, Henry Ingle. London, B. T. Batsford, 1900. 4to. 10s. 6d. 72

"Houses for the Working Classes, How to Provide them in Town and Country." Seven essays by Edwards, Clement and others. London, P. S. King, 1900. 48 pp. 1s. 73

"Working Class Dwellings. Papers read before the Royal Institute of British Architects, April, 1900, with the Discussion thereon." I—Effects of Injudicious Legislation, by John Honeyman; II—Block Buildings, The Associated and Self-Contained Systems, by Henry Spalding; III—The Later Peabody Buildings, by W. E. Wallis; IV—The Rebuilding of the Boundary Street Estate, by Owen Fleming. London, P. S. King, 1900. Plans and Views. 2s. 6d. 74

"Working Class Dwellings." Honeyman, J. London, P. S. King & Son, 1900. 4to, 30 pp. Cl. 2s. 6d. 75

"The Housing Question." Smith, Alfred. London, Sonnenscheim, 1900. 1s. 78

American and English Articles, 1813-1900.

"Dwellings of the Poor." Howell, George. 19th Cent. 13:992 (1813). 77

"Organized Work Among the Poor." Hill, O. Macmillan 20:219 (1869), 26:441 (1872). 78

"Dwellings of the Poor in Large Towns." Hoole, E. J. Soc. Arts 23:968 (1875). 79

"Homes for the People." Paine, R. T. Am. J. Soc. Sci. 15:104 (1882). 80

"Laborers and Artisans' Dwellings." Chamberlain, Joseph. Fortn. n. s. 34:761 (1883). 81

"Improvements now practicable in the Dwellings of the Poor." Hill, O. 19th Cent. 14:925 (1883). 82

"Laborers' and Artisans' Dwellings." Salisbury, Marquis of. National 2:301 (1883). 83

"Housing of the Poor in Towns." Fortn. n. s. 34:587 (1883). 84

"Workingmen's Homes." Bowker, R. R. Harpers M. 68:769 (1884). 85

"Housing of the Poor." Boulton, H. E. Fortn. 49:279 (1888). 86

"Housing of the Poor." Lymington, Viscount. Fortn. 49:279 (1888). 87

"Homes for the People." Mawson, Harry P. Hrprs. Wkly. 35:869 (1891). 88

"Housing of the Poor." Horseley, J. W. Econ. R. 3:50 (1893). 89

"Homes for the Poor." White, A. T. Chaut. 14:442 (1893). 90

"Improvement of Working Class Homes." Bompas, H. M. Fortn. 64:738 (1895). 91

"Dwellings of the Poor." Lend a H. 15:135 (1895).

"Housing of the Poor." Blackall, C. H. Am. Arch. 31:53 (1890), 52:23, 63 (1896). 92

"Municipal Dwellings for Artisans." (London.) Donald, Robert. Outlook 53:245 (1896). 93

Housing of Working Classes, Etc.—*Continued.*

"Need of Better Homes for Wage Earners." Graffenreid, Clare de. Forum May, 1896. 94
"Housing of the Poor in Cities." Outlook 53:204 (1896).
"Homes of the People." Commons, John R. Our Country 5:13 (Feb. 1897). 95
"Half a Century of Improved Housing." Tolman, W. H. Yale R. 5:288, 389 (Feb. 1897). 96
"Housing of the Laboring Classes Problem, The." Boulnois, Percy. San. Rec. Feb. 19, 1897. 97
"English Homes for Workingmen." Wood, Octavius Grant. Inland Architect March, 1897. 98
"Housing Question and Scientific Reform, The." Caldwell W. Bibliotheca Sacra April, 1897. 99
"Improved Housing for the Poor." Cooper, Ella H. Gunton's M. 12:416 (June, 1897). 100
"Housing of the Working Classes." Beveridge, A. T. Gordon. San. Rec. 20:96, 121 (July 23, 1897), San. J. 4:302 (Aug. 1897). 1
"How to Live with Comfort and Economy." Gardiner, Florence Mary. San. Rec. 20:379 (Oct. 8, 1897). 2
"Houses for Industrial Communities During the Victoria Era." Gardiner, Florence Mary. San. Rec. 20:408 (Oct. 15, 1897). 3
"How to House the Poor." London 7:35 (Jan. 20, 1898).
"The Housing of the Poor." San Rec. 22:459 (Oct. 28, 1898).
"Housing of the Working Classes." Meade, T. deCourcy. Sanitarian 42:3 (Jan. 1899). 4
"Housing Improvements." Sykes, J. F. J. Sanitarian 42:13 (Jan. 1899). 5
"Dwelling Accommodations in Large Cities." Sykes, John F. J. San. Inst. 20:1 (April, 1899). 6
"The Housing Problem." Barnett. Mun. J. & London 8:1337 (Dec. 15, 1899). 7
"Artisans' Dwellings." Brierley, J. H. San. Rec. 24:386 (Nov. 3, 1899), 24:410 (Nov. 10, 1899). 8
"Housing of the Working Classes, The." Evans, W. Arnold. Public Health 11:481 (April, 1899). 9
"Dwellings for the Working Classes Financially Considered." Fyfe, Peter. Brit. Arch. 51:248 (April 7, 1899). 10
"Problems in Housing." Fyfe, Peter. Mun. J. & London 8:493 (April 21, 1899). 11
"The Housing Problem." Gould, E. R. L. Mun. Aff. 3:108 (March, 1899). 12
"Housing Problem, The." (Editorial). Mun. J. & London 8:957 (Aug. 25, 1899).
"Housing Problem, The." Sanitarian 43:337 (Oct. 1899).
"Labourers' Dwellings." Ilbert, Lettice. Econ. J. 9:605 (Dec. 1899). 13
"Laborers' Cottages." Cochrane, Constance. Fabian Tract No. 101, pp. 7-9. London, Fabian Society, 1900. 8vo, 50 pp. 1d. 14
"General Principles." Dodd, E. Lawson. Fabian Tract No. 101, pp. 32-43. London, Fabian Society, 1900. 8vo, 50 pp. 1d. 15
"Housing Impressions." Hayter, Richard. Char. Or. R. 7:16 (Jan. 1900). 16
"House Hunger." Mun. J. 9:56 (Jan. 19, 1900).
"The Housing of the Working Classes." Loch. C. S. Char. Or. R. 7:82 (Feb. 1900). 17
"Working Class Dwellings." Tew, J. S. Pub. Health Feb. 1900. 18
"The Housing of the Working Classes." Wilson, Edmund. J. Soc. Arts 48:253 (Feb. 9, 1900); San. Rec. 25:136 (Feb. 16, 1900). 19
"People and Houses." Bosanquet, Helen. Econ. J. 10:7 (March, 1900). 20
"Housing the Poor." Donald, Robert. Contemp. 77:323 (March, 1900). 21
"The Housing Problem." Mun. J. 9:249 (March 30, 1900).
"An Aspect of the Housing Problem." Taylor, Graham. Commons No. 44, p. 3 (March 31, 1900). 22
"The Housing Problem in Great Cities." Gould, E. R. L. Q. J. E. 14:378 (May, 1900). 23
"Housing of the Working Classes." Priestley, J. San. Rec. 25:379 (May 4, 1900). 24
"Overcrowding and Re-Housing." San. Rec. 25:490 (June 8, 1900).
"Housing of the Poor, The." Ann. Am. Acad. Pol. Sci. 16:160 (July, 1900).

Housing of Working Classes, Etc.—*Continued.*

"Housing of the Laboring Classes." Horsfall, T. C. Char. Or. R. 8:128 (Aug. 1900). 25

"Homes for the Very Poor." Mathews, J. Douglass. Mun. J. 9:610 (Aug. 3, 1900). 26

"Housing of the Laboring Classes." Boulnois, H. Percy. Mun. J. 9:634 (Aug. 10, 1900). 27

"Municipal Housing Conference." Waterlow, Sir Sydney. Mun. J. 9:634 (Aug. 10, 1900). 28

"Housing of the Working Classes." Dudfield, T. O. Public Health, Sept. 1900. 29

"Elements of the Housing Problem." Fisher, Lettice. Econ. R. 10:434 (Oct. 15, 1900). 30

"How the Working Class Live." Pp. 91-103 in "Socialist Campaign Book, 1900." Chicago, Charles H. Kerr, 1900. 8vo, 149 pp. 31

"The Housing of the Poor." Horsley, J. W. Humanitarian 17:326 (Nov. 1900). 32

Foreign Books and Pamphlets, 1865-1900.

"Die Wohnungsfrage mit besonderer Rücksicht auf die arbeitenden Classen." Berlin, Hrsg. v. Centralverein f. d. Wohl. d. arbeitenden Classen, 8vo, 1865. 33

"Die Wohnungszustände der arbeitenden Klassen." Sax, E. Vienna Beck's Univ. Buchh., 1869, 8vo. 34

"Reform der Wohnungszustände in grossen Städten." Ratkowski, Math. G. Wien, 1871. 1m. 35

"Die Arbeiterhäuser auf der Pariser Weltausstellung." Wist, Joh. Wien, 1877. 36

"Die Arbeiterhäuser auf der Pariser Weltausstellung von 1876." Böniches, F. Vienna, 1878. 37

"Die Arbeiter Wohnhäuser in ihrer baulichen Anlage und Ausführung, sowie die Anlage von Arbeiter-Kolonien." Klasen, L. Leipzig, 1879. 38

"Habitations Ouvrières en tous Pays." Muller, Emile, and Cacheux, Emile. Paris, Baudry, 1879. With supplementary volume of plates. 8vo, 650 pp. 78 plates. 60 fr. 39

"Gesunde Wohnungen." Schülke, Herm. Berlin, Springer, 1880. 218 pp. 5m. 40

"Die Wohnung des Arbeiters, mit Rücksicht auf die neuern Bestrebgn. zur Förderg. d. Wohls der Arbeiter-familien, etc." Balmer-Rinck, J. Basel, Detloff, 1883. 8vo, 30 pp. 2m. 40 pf. 41

"Die Wohnungsverhältnisse in den grösseren Städten." (Sammlung v. Vorträgen). Hausen, P. Ch. Heidelberg, 1883. 42

"Anlage von Arbeiterwohnungen vom wirtschaftlichen, sanitären und technischen Standpunkte mit einer Sammlung von Plänen der besten Arbeitshäuser Englands, Frankreichs und Deutschlands." Manega, Rudolf. Weimar, 1883. 2d ed. 170 pp. 43

"Das Wohnhaus des Arbeiters." Schmölke, J. Bonn, Strauss, 1883. 2d ed. 8vo. 8m. 50 pf. 44

"Der Haushalt der arbeitenden Klassen, eine sozial statistische Untersuchung." Berlin, F. Luckhardt, 1883. 138 pp. 3m.

"Economiste Pratique: L'Habitations Ouvrières et Maisons d'Employés, etc." Cacheux, Emile. Paris, Baudry & Cie., 1884. 40 fr. 45

"Les Classes ouvrières en Europe. Etudes sur leur Situation, materielle et morale." Lavollée, René. Paris, Guillaumin et Cie., 1884. 2 vols, 8vo, 20 fr. 46

"Devoir Social et les Logements ouvriers." Picot, Georges. Paris, Levy, 1885. 47

"Grundzüge der Arbeiterwohnungsfrage mit besonderer Berücksichtigung der Unternehmungen, die Arbeiter zu Hauseigentümern zu machen." Reichardt, Erwin. Berlin, Püttkammer u. Mühlbrecht, 1885. 74 pp. 1m. 40 pf. 48

"Les Logements d'Ouvriers et le Devoir des Classes Dirigeantes." Delaire, A. Lyon, 1886. 49

"Le Logement de l'ouvrier et du pauvre." (United States, Great Britain, France, Germany, Belgium). Raffalovich, Arthur. Paris, Guillaumin et Cie. 1887. 486 pp. 3 fr. 50c. 50

"Zur Wohnungsfrage." Engels, Fr. Sozialdemokratische Bibliotek XIII, Zürich, 1887. 51

"Die Wohnungsnoth in den Grossstädten." Wiss, Ed. Viertaljahrschrift f. Volkswirtschaft, 1887. 52

"Die Arbeiterwohnungsfrage, und die Bestrebungen zur Lösung derselben." Trüdinger, O. Jena, 1888. 233 pp. 53

Housing of Working Classes, Etc.—*Continued.*

"Congrés International des Habitations à bon marché, tenu à Paris les 26, 27 et 28 Juin 1889." Rouillet, A. Paris, 1889. 54

"Die städtischen Wohnungen." Pp. 5-31. J. Stübben's "Städtebau." Darmstadt, Bergsträsser, 1890. 561 pp. 32m. 55

"Etat des Habitations Ouvrières à la fin du XIXe Siècle." Cacheux, Emile. Paris, Baudry, 1891. 184 pp. 18 plates. 4 fr. 56

Wohnungsfrage. Lehr, J. Vol. VI, pp. 727-752 of Conrad, 1st ed., 1893. See 2-10. 57

Stadterweiterungen. Adickes. Vol. V, pp. 847-850, Conrad, 1st ed., 1893. See 2-10. 58

"Städtische Bodenfragen." Eberstadt, Rud. Berlin, M. Heymann, 1894. 8vo, 127 pp. 2m. 59

"Die wirtschaftlichen Aufgaben d. modernen Stadtgemeinde." Bücher, Karl. Leipsic, Seele & Co., 1898. 30 pp. 60

"De l'Amelioration de l'Habitation à bon marché." Beret, Auguste. Marseilles, Barlatier, 1899. 8vo, 303 pp. 61

"Weiträumiger Städtebau und Wohnungsfrage. Darstellung und Kritik darauf Einführung weiträumiger Bauweise im Städteerweiterungsgebeit gerichteten Bestrebungen." Abele. Stuttgart, 1900. 8vo, 72 pp. 1m. 40 pf. 62

"Des Habitations à bon marché." Robin, André. Paris, Chevalier Maresq & Co., 1900. 8vo. 63

"Legislation sur les Logements Insalubres." Jourdan, Gustave. (5th ed.) Paris, Berger-Levrault & Co., 1900. 8vo, 564 pp. Paper, 6 fr. 64

Foreign Articles: 1863-1900.

"Cité Ouvriére de 128 Logements." Nouv. Annales de la Const. p. 66, 1863.

"Die Wohnungen des Volkes, zu Ende d. 19 Jahrhunderts." Meissner, Alois. (A series of articles in the Allgemeine Bauzeitung, Vol. 54 to 59 on Housing of the People). 1889-94. 65

"Die Wohnungsnoth in grossen Städten und deren Bekämpfung." Oesterr. Monatschr. f. d. Oeffent. Baudienst March, 1897.

"Housing and Feeding of the People." Brelay, Ernest. Réforme Sociale 34:530 (Oct. 1897). 66

The Housing of the Poor and the Urgent Needs of Reform. Drucker. De Gids, March, 1898. 67

"Sur le Logement des Classes Laborieuses." Hardy, C. Ref. Soc. 37:180 (Jan. 16, 1899). 68

"Die Wohnungen des vierten Standes." May, Max. Gesellschaft, Oct. 1, 1899. 69

"Zur Wohnungsfrage." Hugo, C. Neue Zeit 17:399 (June 24, 1899). 70

Housing of the People and Sanitation. Oosterbaan, G. De Gids Dec. 1899. 71

"Les Habitations Ouvrières Municipales en Europe." Artibal, J. R. Municipale 3:1865 (Jan. 27, 1900). 72

The Housing Question. Kruseman, H. Vragen des Tijds Feb. 1900. 73

"Zur Wohnungsfrage." Hugo, C. Neue Zeit 18:87 (April 21, 1900). 74

"Le Mouvement d'Amelioration des Habitations Ouvrières." Rostand, Eugène. B. Société F. des Habitations 1:48 (1900). 75

"Les Habitations à bon marché." de Nouvion, Georges. R. Revs. 33:113 (April 15, 1900). 76

"Feuillets Detachés de l'Histoire de l'Habitation Ouvriere." Buse, Julien. R. Générale Nov. 1900. 77

REFERENCES ON SPECIAL PHASES.

"Bibliography of the Housing Question, A Select." Webb, Sidney. Fabian Tract No. 101. pp. 44-50. London, Fabian Society, 1900. 8vo, 50 pp. 1d. Same, pp. 42-8, "Houses for the Working Classes." London, P. S. King, 1900. 1s. 78

"Brussels Housing Congress." Smith, Alfred. London 6:675 (Aug. 12, 1897). 79

Children. "Housing Poor Children." Mun. J. 9:74 (Jan. 26, 1900).

"Club Homes for Unmarried Working Men." Moffat, W. Blackw. 156:701 (1894). 80

Congestion of Population in Cities. (See under **Population**).

"Co-operative Residences, The Coleman-Stuckert System of." Gardiner, Florence Mary. San. Rec. 20:313 (Sept. 17, 1897), 20:359 (Oct. 1, 1897), 20:379 (Oct. 8, 1897), 20:463 (Oct. 29, 1897). 81

Housing of Working Classes, Etc.—*Continued.*

"Co-operators and Housing." Bruce, W. Wallace. Mun. J. 9:88 (Feb. 2, 1900), 9:113 (Feb. 9, 1900). 82

Cottages or Tenements. "Villa oder Miethskaserne." Schasler, M. Gartner, J. Berlin, 1868. 83

——. "Municipal Cottages." Mun. J. & London 8:117 (Jan. 26, 1899).

"Economics of Improved Housing." Gou'd, E. R. L. Yale R. May 1896, p. 8. 84

"Factory Town, A Model." Shuey, Edwin L. Mun. Aff. 3:145 (March, 1899). 85

"Industrial Dwellings." Pp. 660-667, Vol. I. Palgrave. See 1-2. 86

Insanitary Housing Conditions. (See under Slums, Tenement Houses below).

"Land Values, The Housing Problem and." (Editorial). London 7:769 (Dec. 1, 1898).

"Lodging Houses." Chapter IX of Marcus T. Reynold's "Housing of the Poor in American Cities." 87

——. "Model Lodging Houses." Smith, Katharine Louise. Gunton's 17:125 (Aug. 1899). 88

——. "Municipal Lodging Houses." Finley, R. J. N. Y. Rec. and Guide July 18, 1891; McGuire, James K. City Govt. 7:7 (July 1899); Shaw, Albert. Char. R. 1:20 (1891); anon. All the Year 72:276 (1893); Mun. J. & London 8:169 (Feb. 9, 1899); The Other Side 1:98 (Sept. 2, 1899). 89

——. "Registration of Common Lodging Houses, The." San. Rec. 24:100 (Aug. 4, 1899).

——. "Das Schlafstellenwesen in den Deutschen Grossstädten und seine Reform." Cahn, E. Münchener Volkswirtschaftliche Studien, No. 28, 1898. 3m. 90

——. "Workingmen's Hotels." Thomas, John Lloyd. Mun. Aff. 3:73 (March, 1899). 91

"Management of Houses for the Poor." Hill, Octavia. Char. Or. R. 5:20 (Jan. 1, 1899). 92

Model Tenements. (See under Tenement Houses below).

"Morality, Tenement House." Huntington, J. O. S. Forum 3:513 (1887). 93

——. "Dwellings of the Poor and their Morality." McDermot, George. Catholic World Feb. 1897. 94

——. "Der Einfluss der Wohnung auf die Sittlichkeit." Laspeyres, E. Berlin, 1869. 95

Municipal or State Action Regarding Housing. "Housing Question as Affected by State Action, The." Parsons, James. Char. Or. R. 5:247 (May, 1899). 96

——. Labourers' Dwellings and their Improvement by Law. Pokrovskaya, M. J. Vyestnik Yevropu Dec. 1899. 97

——. "Legal Obligations in Respect to Dwellings of the Poor." Duff, H. London, Clowes, 1884. 1s. 98

——. "Mischief of State Aid." Shaftsbury, Earl of. 19th Cent. 14:934 (1896). 99

"Municipal Housing." de Forest, Robert W. Char. R. Vol. V, No. 15, p. 3 (Sept. 8, 1900), Char. Or. R. 8:135 (Aug. 1900). 100

——. "The State and Dwellings of the Poor." Vrooman, F. B. Arena 12:415 (1895). 1

——. "The Erection of Artisan's Dwellings by Municipal Corporations." Builder 76:79 (Jan. 28, 1899).

——. See also under Slums below.

"New Movement for Homes." Girling, G. E. Irrigation Age (Chicago) Feb. 1897. 2

"Old Age Pensions by Means of Municipal Dwellings." Thomas, E. Econ. R. 5:221 (1895). 3

"Public Opinion and Improved Housing." McDermot, George. Cath. World March, 1897. 4

Rowton Houses. "Poor Man's Hotel." London. (See Housing under **London**).

"Rural Poor, The Housing of the." Cochrane E. San. Rec. 25:338 (April 20, 1900). 5

Sanitation and Housing. "Dwellings for the Poor and Sanitary Legislation." Child, G. W. Contemp. 32:297 (1878). 6

——. "Etude sur les Conditions Hygiéniques et les Convenances Générales à Remplir dans la Construction des Maisons à bon marché et Cités Ouvrières des Faubourgs et Usines." Gossett, A. Nouv. Annales de la Const. p. 6, 1879. 7

——. "Gesunde Wohnungen, etc." Schülke, H. Berlin, 1880. 8

Housing of Working Classes, Etc.—*Continued.*

—. "Health in the Dwelling, etc. Articles written for and collected by the Mansion House Council." London, Clowes, 1884. 7s. 6d.
—. "Housing and Health." Bosanquet, Bernard. Char. Or. R. 7:193 (April, 1900). 9
—. "L'Hygiène dans la Construction des Habitations Privées." Putzeys, F., Putzeys, E. Brussels, 1882. 2d ed. Lüttich, 1885. 8vo, ill. and diagrams. 12 fr. 10
—. "Sanitary Consideration of the Housing of the Poor." Newell, Wm. H. Sanitary Monitor, Jan. 1886. 11
—. "Sanitary Oversight of Dwellings." Angell, Lewis. Van. Nos. Eng. M. 25:388 (1881); Moore, M. I. Char. R. 4:434 (1895). 12
—. "Tenement Sanitation." Wingate, C. F. Lend a H. 2:82 (1887). 13
—. (See also under **Sanitation**).
"Separate Dwellings." Sykes, John F. J. Pub. Health Feb. 1900. 14
"Shelters for the Homeless, Sanitary Supervision of." Waldo, F. J. San. Rec. Feb. 1897. 15
Slums, Insanitary Areas, etc. "The Battle with the Slum." Riis, Jacob A. Atlan. 83:626 (May, 1899). 16
—. "Bright Side of the Slums." Russel, Ernest E. Outlook 52:500 (1895). 17
—. "Cure for Slums, The Only." Gould, E. R. L. Forum 19:495 (1895). 18
—. "Crusade against Slums." San. Rec. 22:425 (Oct. 21, 1898).
—. "Dietaries of the Slums, What the Very Poor Eat." Bache, René. Sanitarian 42:105 (Feb. 1899). 19
—. "Etude sur les causes et les effets des Logements insalubres." Marjolin. Paris, Masson, 1881. 28 pp. 1 fr. 20
—. "Healthy Homes and Foods for the Working Classes." Vaughan, Victor C. American Public Health Association, 1886. 62 pp. 21
—. "Houses Unfit for Human Habitation." Stephens, J. E. R. San. Rec. 22:480 (Nov. 4, 1898). 22
—. Insanitary Houses. "Le Logement Insalubre." Strauss, Paul. R. Municipale 3:1929 (Feb. 24, 1900). 23
—. "Insanitary Property and the Responsibility of House Agents." San. Rec. 24:159 (Aug. 25, 1899).
—. "Legislation sur les Logements Insalubres. Traité pratique." Jourdan, Gustave. Paris, Berger, L. et Cie., 4th ed., 1889. 6 fr. 24
—. "Logements Insalubres, La Loi de 1850." Laurent, Emile. Paris, Piccard, 1882. 25
—. "Making a Way Out of the Slums." Riis, Jacob A. Am. R. of R. 22:689 (Dec. 1900). 26
—. "Municipality and Slums." Nation 70:333 (May 3, 1900).
—. "Problem of the Slums." Blackw. M. 149:123 (1891).
—. "Rapid Transit and the Slums." Real Estate Rec. & Guide July 30, 1892, p. 141.
—. "Removal of Insanitary Areas and the Management of Improvement Schemes under the Housing of the Working Classes Act." Addie, Peter. Sanitarian 42:19 (Jan. 1899), J. San. Inst. 20:11 (April, 1899). 27
—. "Salvation Army among the Slums." Booth, Maud B. Scrib. M. 17:102 (1895). 28
—. "Servant Class on the Farm and in the Slums, The." Hall, Bolton. Arena 20:373 (Sept. 1898). 29
—. "Seventh Special Report of the Commissioner of Labor on the Slums of Great Cities." (Baltimore, Chicago, New York and Philadelphia). Washington, Government Printing Office, 1894. 620 pp. 30
—. "Slums of Great Cities, The." Osborn, C. Econ. J. 5:474 (1895). 31
—. "Studies in the Slums." Campbell, Helen J. Lippinc. 25:568 (1880). 32
—. "Unhealthy Areas and Displacement of Town Populations." Beachcroft, R. Melville. J. San. Inst. 21:382 (Oct. 1900). 33
—. "Unhealthy Areas and Municipal Housing." Blashill, Thomas. 34
—. "Uninhabitable Dwellings." Jones, Hugh R. Sanitary Record 19:394 (April 30, 1897). 35
—. "What to do for the Slums." Gunton's 14:318 (May, 1898). 36

Housing of Working Classes, Etc.—*Continued.*

Social Significance of the Housing Question. Koch, A. Kultur Heft 2, 1900. 37

State Action Regarding Housing. (See under Municipal or State Action, Slums, above).

Tenement Houses. "Competition, Tenement House." (With analysis of plans as published in the Tribune). Engng. Rec. June 6, 1896.

——. "Better Homes for Workingmen." White, Alfred T. Paper prepared for the Twelfth National Conference of Charities, held at Washington, June, 1885. 20 pp. 38

——. "Foreign Cities, Tenement Houses in." U. S. Consular Reports, Vol. XLVIII, No. 178, July, 1895. (Berlin, Brussels, Glasgow, Liverpool, London and Paris). 39

——. Family Life in Tenement Houses. "Home in the Tenement House, The." Ames, L. T. New Eng. M. n. s. 7:594 (1893). 40

——. "How the Other Half Lives, Studies among the Tenements of New York." Riis, J. A. New York, Scribners, 1892. 304 pp. $1.25. 41

——. "Improved Dwellings for the Working Classes." White, A. T. New York, G. P. Putnam's Sons, 1879, 45 pp. "Better Homes for Workingmen." By same author. 20 pp. 1885. "Riverside Buildings." 12 pp. 1890. 42

——. "Improved Houses for Town Dwellers. Improved Means of Communication." Waterlow, Sydney H. J. San. Inst. 21:417 (Oct. 1900). 43

——. "Improved Tenements." Da Cunha, Geo. W. Am. Arch. 52:123 (1896). 44

——. "Improved Tenement Houses for American Cities." Weber, G. A. Mun. Affairs 1:745 (Dec. 1897). 45

——. "Improvement in Tenement House Construction." Real Estate Rec. & Guide Jan. 2, 1892, p. 2. 46

——. "Investment, Tenement Property as an." Real Estate Rec. & Guide July 7, 1894, p. 86; Aug. 4, 1894, p. 158.

——. "Irrational Tenement House Building." Real Estate Rec. & Guide July 7, 1894, p. 2; July 21, 1894, p. 86; Aug. 4, 1894, p. 158.

——. "Misères et Remèdes." (Tenement House Life). d'Haussonville, Comte. Paris, C. Levy, 1886. 7 fr. 50c. 47

——. Model Tenements. Tolman, William Howe. Arena Sept. 1896; Williamson, Emily E. Charities, Vol. V, No. 2, p. 1 (June 9, 1900); anon. Labor Bulletin Mass. No. 3, p. 19, July, 1897; Gunton's 17:57 (July, 1899); Engng. Rec. 41:232, 280, 304 (March, 1900). 48

——. "Model Dwellings, Blocks of." Arkell, Geo. E. and Octavia Hill. Chapter I, pp. 3-58, Vol. III, "Life and Labor of the People," by Charles Booth. 49

——. "Model Apartment Houses, Conditions of Competition for Plans of." New York Association for Improving the Condition of the Poor, 1895. 50

——. "Model Homes for the Middle Classes." Gardiner, Florence Mary. San. Rec. 20:313 (Sept. 17, 1897), 20:359 (Oct. 1, 1897). 51

——. "Modern City Dwelling, The." (Editorial). Arch. & Build. 27:109 (Sept. 25, 1897).

——. "Plans for Model Tenements and Suburban Homes." Flagg, Ernest; Ware, James E.; Griffin, Percy; Hands, Alice J.; Gannon, Mary Nevan; Huss, George Martin. Mun. Aff. 3:125-143 (March, 1899). 52

——. "Prize Designs for Model Tenements." Construction News 10:171 (March 7, 1900).

——. "Profits of Tenement Property." Real Estate Rec. & Guide Oct. 21, 1893, p. 465.

——. "Relation of Tenement Houses to the Family Life." Lend a H. 12:323 (1894).

——. "Report of the Tenement House Commission. New York Senate Doc. 36, 1885. 235 pp. 53

——. "Report of the Tenement House Committee of 1894." (Richard Watson Gilder, Chairman). New York Assembly Doc. No. 37, 1895. 649 pp. 54

——. "Side Lights on the Tenement House Evil," Flower, B. O. Arena 9:673 (1894). 55

——. "Studies among the Tenements." Riis, J. A. Scrib. M. 6:643 (1889). 56

——. "Tenement House Blight." Riis, Jacob A. Atlan. 83:760 (June, 1899). (Curing its Blight). Atlan. 84:18 (July, 1899). 57

Housing of Working Classes, Etc.—*Continued.*

—. "Tenement House Life and Recreation." Betts, Lillian W. Outlook 61:364 (Feb. 11, 1899). 58

—. "Tenement Houses and Family Dwellings." Lend a H. 12:323 (1894). 59

—. "Tenement House Problem." Bradshaw, M. Lend a H. 15:261 (1895); Rollins, A. W. Forum 5:207 (1888); Veiller, Lawrence. Public Improvements 2:198 (March 1, 1900); Wingate, C. F. Annals of Hygiene 3:41 (1888). 60

—. "Tenement Houses, an Attempt to Give Justice." Eilvart, E. Char. R. 3:343 (1894). 61

—. "Tenement Houses, the Real Problem of Civilization." Riis, J. A. Forum 19:83 (1895). 62

—. "Tenement House Reform." Veiller, Lawrence. Ann. Am. Acad. Pol. Sci. 15:138 (Jan. 1900); anon. Arch & Build. 31:17 (July 15, 1899); Char. R. 9:236 (Aug. 1899); Outlook, 62:741 (Aug. 5, 1899). 63

—. "Tenement Houses and their Tenants." Bocock, Kempner. Social Economist 6:111 (1894); Hall, L. M. Am. J. Soc. Sci. 20:91 (1885). 64

—. "Tenement Neighborhood Idea." Papers by Jean Fine Spahr, Fannie W. McLean, Helen Moore and Mary B. Damon, pp. 23 to 65. "Literature of Philanthropy," edited by Frances Goodale. 65

—. Tenements and Tenement House Reform. Pp. 1322-1328 Encyc. Soc. Ref. See 1-3.

—. "Tenant, The Tenement House. A factor that has been overlooked in the proposals for Tenement House Reform." Real Estate Rec & Guide Feb. 9, 1895, p. 204. 66

—. "The Ethical Side of Tenement House Reform." C. T. C. Open Church 2:365 (Oct. 1898). 67

—. "The Tenement House Curse." Tolman, Wm. Howe and others. (With short bibliography). Arena 9:659 (1894). 68

—. "The Tenement House Exhibit." Betts, Lillian W. Outlook 64:589 (March 10, 1900). 69

—. "The Tenement House Exhibition of 1899." Veiller, Lawrence. Char. R. 10:19 (March, 1900). 70

—. "Tuberculosis, The Tenements and." Knopf, S. A. Sanitarian 45:208 (Sept. 1900); Pryor, John H. Char. R. 10:440 (Dec. 1900). 71

—. "Twentieth Century Tenements." Davidson, Henry T. Our Day 19:255 (May, 1900). 72

Transit Facilities and Housing. "Tramways and the Housing of the Working Classes." Cuningham, Granville C. Ty. & Ry. World 8:477 (Dec. 7, 1899), Elec. R. 36:42 (Jan. 10, 1900). 73

—. "Workmen's Homes and Workmen's Trains." Welsh, Charles. New Eng. M. 20:764 (Aug. 1899). 74

"Workman's Reflections on Housing of the Poor, A." Glazier, William. 19th Cent. 14:952 (1883). 75

—. "Wage Earner's Interest in Improved Housing, A." Cent. 52:793 (1896).

Women, Housing of. "The Housing of the Educated Working Women." Reinherz, H. English Woman's R. Jan. 1900. 76

—. "A Girls' Lodging House." Leake, (Mrs.) Percy. 19th Cent. Dec. 1898. 77

—. "Cheap Lodging Houses for Women." Merry, Andrew. Humanitarian 17:413 (Dec. 1900). 78

—. "Homes for Working Women in Large Cities." Maclean, Annie Marion. Char. R. 9:215 (July, 1899). 79

—. "Housing of Single Women." Fayès, Harriet. Mun. Aff. 3:95 (March, 1899). 80

Huddersfield, Eng.

"The English Municipal Mecca." Mun. J. & London 8:1307 (Dec. 8, 1899).

Transit Facilities. "Huddersfield Tramways and the Municipalization of Tramways." Pogson, J. Elec. Rev. (London), April 23, 1897; anon. St. Ry. Rev. 7:389 (June 15, 1897). 81

—. "Huddersfield Corporation and Electric Traction." Ry. World 8:258 (July 6, 1899).

"Waterworks, Huddersfield." San. Rec. 20:123 (July 30, 1897).

"**Hudson [N. J.] County's** Experiment in Lighting." "W. B. R." Mun. Rec. & Ad. Vol. I, No. 24, p. 5 (Nov. 20, 1897).

Hull, England.

Burial, Cremation. "The First Municipal Crematorium." Mun. J. 9:361 (May 11, 1900). 82

Housing Conditions. "Hull, The Slums of." Mun. J. 9:845 (Oct. 26, 1900).

"Hull, Eng.—Through Municipal Spectacles." Mun. J. 9:417 (June 1, 1900).

Lighting. "The Municipal Electric Lighting Systems of Hull and of Folkestone, England." Elec. World 32:585 (Dec. 3, 1898).

Transit Facilities, Tramways. Armstrong, F. C. St. Ry. Jour. 14:355 (July, 1898); Elec. Rev. (London) 45:18 (July 7, 1899), Ry. World 8:279 (Aug. 10, 1899), Mun. J. 9:337 (May 4, 1900). 83

Hull House. (See Settlements under **Chicago**).

"**Hunan [China]**, Electric Lights in." Child, Jacob T. U. S. Consular Reports 56:29 (Jan. 1898). 83a

Illinois.

"Local Government in Illinois." Shaw, Albert. J. H. Univ. Studies 1:3 (1883). 84

"Local Improvement Act of Illinois." Thompson, A. D. City Govt. 6:110 (May, 1899). 85

Municipal Control, Municipal Ownership. "Private and municipal ownership of gas works, water works and electric and power plants." (Illinois). Tenth Biennial (1898) Report of the Ills. Bureau of Labor Statistics. Springfield, 1899. 271 pp. 86

"Street Railways in Illinois, and their Franchise Conditions." St. Ry. J. 13:304 (May, 1897).

"Water Supplies of Illinois." Fire & W. May 29, 1897.

——. "An Important Water Works Decision in Illinois." (Editorial). Am. Gas Light J. 67:848 (Nov. 29, 1897).

Independent Movements. (See under **Parties and Party Politics in Cities, Reform, Municipal**).

India.

"The Reconstruction of Plague-Stricken Cities in India." Hughes, A. J. Eng. Nov. 11, 1898. 87

Indiana.

"Police Co-operation." Harrison, George A. City Govt. 9:124 (Nov. 1900). 88

"Sewage Disposal Law, The Indiana." Engng. Rec. 42:98 (Aug. 4, 1900).

"Street Railway Statistics, Indiana." St. Ry. Rev. 8:303 (May 15, 1898).

Indianapolis, Ind.

History, Description and Statistics of Indianapolis, Ind., in 1880, Census. See 1-7. 89

"Municipal Condition of Indianapolis." Swift, Lucius B. P. 374, Proc. Second Nat'l Conf. for Good City Govt., 1895. See 6-18b. 90

"Pavements, Notes on Indianapolis." Engng. Rec. 40:219 (Aug. 5, 1899).

——. "Creosoted Wood Block Pavements in Indianapolis." Downing, M. A. Mun. Engng. 17:288 (Nov. 1899), St. Ry. R. 10:92 (Feb. 15, 1900). 91

"Schools of Indianapolis, Public." Rice, J. M. Forum 14:429 (1892). 92

——. "Kindergarten Progress in Indianapolis." McKenzie, Anna. Cent. 54:957 (Oct. 1897). 93

"Sewerage System of Indianapolis." Brown, Charles Carroll. J. Assoc. Engng. Soc. March, 1896. 94

Transit Facilities. "Street Railways of Indianapolis." St. Ry. Jour. Aug. 1894.

——. "The Indianapolis Street Railway Franchise." Engng. Rec. 39:537 (May 13, 1899); Ann. Am. Acad. Pol. Sci. 14:145 (July, 1899).

——. Three-Cent Fare Law in Indianapolis." St. Ry. Rev. 7:269, 296, 417, 513, 580 (1897); St. Ry. J. 13:318, 418 (1897); Mun. Rec. & Adv. Aug. 7, 1897; Prog. Age 15:396 (Sept. 15, 1897).

Indianapolis, Ind.—*Continued.*

——. "Report of Commercial Club's Special Committee on Indianapolis Street Railway Franchise." Indianapolis, Commercial Club, 1899. 8vo, 29 pp.

"Women's Work in Indianapolis." McClung, Hester M. Mun. Aff. 2:523 (Sept. 1898). 95

Initiative and Referendum. (See under **Direct Legislation**).

Iowa.

"Brick Paving in Iowa." Engng. Rec. 41:106 (Feb. 3, 1900).

"Regulation of Public Utilities in Iowa." Siegfriedt, Thorwald A. A. Public Policy 2:372 (June 16, 1900). 96

"Special Assessments in Iowa." Campbell, C. E. City Govt. 6:4 (Jan. 1899). 97

"State Board of Control." An. Am. Acad. Pol. Sci. 16:144 (Sept. 1900).

"**Ipswich, England,** Experience with Wood Pavements at." Engng. Rec. 40:99 (July 1, 1899).

Ireland. (See Ireland under **United Kingdom**).

Irish, Influence of, in American City Politics. (See under **Foreign Element in American Cities**).

"**Issoire,** The Octroi at." Jordan, David Starr. Pop. Sci. Mo. 33:433 (1888). 98

Italy.

City Government, General References and Unclassified.

"Amministrazione dei Comuni, delle Provincii ecc. dei Pareri del Consiglio di Stato, in Materia Finanziaria e Amministrativa." Molla, Pa., e G. Grimaldi. Verona, G. Civelli, 1891. 492 pp. L. 10. 99

"Amministrazione Pubblica in Italia, L'." del Guerra, Enrico. (Contiene un compendio dell' ordinamento provinciale e comunale.) Firenze, G. Barbèra, 1893. 801 pp. L. 4. 100

"Cities of Italy and their Development." Oldrini, A. Chaut. 18:672 (1894). 1

City Leagues. "Lega di Comuni." Treves, Claudio. Critica Sociale 10:88 (March 16, 1900). 2

"Comune, Il." Coen, S., e D. Dialti. Torino, Unione Tipograficoeditrice, 1896. 3 vols. 766, 358 e 425 pp. 15 L. (Complete Legal Treatise.) 3

——. "Comune, Il, e gli altri Enti Locali Amministrativi." Presutti, E. Roma, Ermanno Loescher e C., 1892. 85 pp. In Rivista Italiana per le Scienze Giuridiche 12:191 (1892). 4

——. "Comuni, Dei, e della Provincia." Martinelli, Mass. Bologna, Composition, 1892. 111 pp. 5

——. "Comuni Italiani, I." Serra, Giu^s. Seconda edizione con un appendice sui debiti comunali. Chioggia, Ludovico Duse, 1889. 54 pp. 6

"Die Lokalverwaltung." Brusa, E. V Abschnitt pp. 337-379 Vol. IV, 1, 7. Marquardsen. See 2-9. 7

"Il Municipio Nuovo." Critica Sociale 10:7 (Jan. 1, 1900). 8

Law. "Il sistéma municipale inglese e la legge comunale italiana. Studi comparativi." Manfrin, Pietro. Florence, 1869-71. 8vo. 9

——. "Legge Comunale e Provinciale Annotata, La." Mazzoccolo, Enrico. Milan, Ulrico, Hoepli, 1894. 728 pp. 10

——. "Legge Comunale e Provinciale, La,—e le Discussioni Parlamentari." Mossa, Pietro. Bari, stab. tip. Gissi e Avellino, 1889. 578 pp. L. 5. 11

——. "Legge Comunale e Provinciale, La Nuova." Pierro, Luigi. Napoli, Aurelio Tocco, 1893. 174 pp. 60c. 12

——. "Legge Comunale e Provinciale, Previ Osservazioni sulla Nuova." Sipione, Corrado. Noto tip. F. Orrecchia, 1890. 19 pp. L. 1. 13

——. "Legge Comunale e Provinciale, La Vigente, Raffrontata coll' Anteriore." Calamandrei, Rod. Firenze, Luigi Niccolai, 1894. 388 pp. 3.50 L. 14

——. "Trattato di Diritto Comunale Positivo." Carnevali, Tito. Mantova, G. Mondovi, 1894. 216 pp. L. 3. 15

Italy—*Continued.*

"Libertà, La, nei Comuni: Appunti." Castiglioni, L. Gallarate, L. Checchi, 1893. 34 pp. Cent. 50. 16

Local and Municipal Government in Italy. Demombynes Vol. I, pp. 353-383. See 2-11. 17

"Modernizing of Italian Cities." Am. Arch. 52:93 (1896).

"Municipal Conditions in Italy." Dohrmann, F. W. Mchts Assoc. Rev. Vol. 2, No. 22, p. 3 (June, 1898). 18

Public Works. "La Responsabilità del Municipio per la Construzione e Manutenzione del Demanio Comunale." Martinis, Ces de. Napoli, R. M. di Guisseppe, 1890. 78 pp. 19

"Recent Progress in Italy." Shaw, Albert. R. of Rs. 12:553 (1895). (See also Chapter IV, p. 249, "Municipal Government in Continental Europe.") 20

Art. "Municipal Art in Italy." French, Allen. New Eng. M. March, 1898. 21

Burial, Cremation, etc. "La Cremation en Italie et à l'Etranger, de 1774 jusqu' a nos jours." Pini, G. Mailand, Hoepli, 1885. 8vo. 6 fr. 22

Charity. "Assistenza Pubblica, Monografia di Scienza dell Amministrazione." Vacchelli, Giov. Cremona, Interessi Cremonesi, 1891. 239 pp. 23

——. "Abandoned Children in Italy." Salazar, Fanny Zampini. p. 19 "International Congress," vol. V, 1893. See 43-99. 24

——. "Charitable Organizations and Charitable Work in Italy." Rossi, Egisto. p. 168 "International Congress," vol. III, 1893. See 43-99. 25

——. "Le Istituzioni Pubbliche di Beneficenza nella Legislazione Italiana. Luchini, Odoardo, Carlo Rosselli e Mario Pegna." Firenze, G. Barbèra, 1894. 1307 pp. 20 L. 26

——. "Legge 17 Luglio sugli Instituti Pubblichi di Beneficenza." Guzzi, Guis. Catania, C. Galatola, 1893. 92 pp. 2.50 L. 27

Economic Transformation of the Municipality. "Il Municipio Nuovo, fattore di Transformazione Economica." Critica Sociale 10:30 (Jan. 16, 1900).

Elections. "Le Elizione Comunali; Manual per gli Elettori." Sisto, Gius. Trani, V. Vecchi, 1889. 118 pp. 1.50 L. 28

——. Municipal Electors. Pesci, Ugo. Rassegna Nazionale Oct. 1, 1899. 29

Finance. "Finanze dei Grandi Comuni in Italia: Studii." Firenze, Errera, 1882. 7m. 30

——. "I Progretti di Legge sui Manicorni e la Finanza Locale." di Verce, E. Fornasari. G. d. Economisti 21:54 (July, 1900). 31

——. "I Provvedimenti per le Finanze Comunali." Critica Sociale 10:17 (Jan. 6, 1900). 32

——. "La Finanza Locale in Italia." Lacava, P. Turin, Roux, Frassati, 1897. 252 pp. 3 L. 33

——. "Le Finanz Comunali—e i Provvedimenti Proposti dal Governo." Fazi, Fr. Foligno, tip. Co-operative, 1894. 80 pp. 34

——. "La Riforma dei Tributi Locali." Alessio, Giulio. Bologna. Garagnani, 1896. 8vo, 97 pp. 35

History. "Storia Retrospettiva dell' Amministrazione Comunale dallo 1860 al 1890." Terni, tip. dell' Industria, 1890. 56 pp. 36

——. "La Lotta di Classe nella Vita Municipale." Montemartini, Giovanni. Critica Sociale 10:299 (Oct. 1, 1900). 37

——. "Recent Insurrections in Italy." (Municipal conditions partly). de Marco, De Viti. National R. 31:902 (Aug. 1898). 38

"Housing in Italy." Mun. J. & London 8:1363 (Dec. 22, 1899). 39

Lighting. "Public Gas Works in Italy." Bachi, Riccardo. Mun. Aff. 4:595 (Sept. 1900). 40

Pawnshops in Italy. R. Municipale 3:1905 (Feb. 10, 1900); Riv. Ben. Pub. 28:166 (March, 1900). 41

——. "I Monti di Pietà in Italia." Sitta, Pietro. Roma, Union Co-operative Editrice, 1893. 28 pp. 42

Police, Organization of the, in Italy. Alongi, G. Nuova Antologia Rome, May 16, 1897. 43

Prostitution. "Prostituzione, nuove Legge e Regolamento sulla Prostituzione." Firenze, Adriano Salani, 1888. 16 pp. 10c. 44

Italy—*Continued.*

Reform. "Riforma Comunale e Provinciale, La." Leporini, Gius, Milano, L. Vallardi, 1890. pp. 70. 45

Sanitary Reform. "La Riforma Sanitaria in Italia." Panizza, Mario. Roma, Alberta Piccolo, 1889. 223 pp. 46

Schools. "Elementary Education in Italy." Lang, Evelyn M. Humanitarian 16:127 (Feb. 1900). 47

Transit Facilities. Amoretti, P. Proc. Inst. Civil Engineers, Vol. 119, London Eng. March 22, 1895, et seq.; Lavalard, E. St. Ry. J. 13:412 (July, 1897). 48

——. "Street and Steam Railways in Italy." Benedetti, F. Chaut. 25:176 (May, 1897). 49

——. "The Development of Electric Tramways in Italy." Bignami, Enrico. Engng. M. 20:173 (Nov. 1900). 50

Ithaca, N. Y.

"Street Railway System of Ithaca, N. Y., The." Cooper, H. S. St. Ry. R. 10:308 (June 15, 1900). 51

——. "Car Tests at Ithaca, N. Y." West, E. L. St. Ry. R. 10:309 (June 15, 1900). 52

"**Jackson, Mich.**, City Government in." Withington, W. H. Ann Arbor, Studies in Finance and History, Michigan Univ. Article in Vol. I, No. 6, Dec. 1895. 25c. 53

Jacksonville, Fla. "Municipal Light Plant." City Govt. 7:118 (Nov. 1899).

Japan.

"Law for the Organization of Cities, Towns and Villages." Yokohama Mail, 1888. Pamphlet, 27 pp. 54

"Settlements in Japan, Social." Anon. Commons 2:1 (May, 1897); Outlook 56:511 (June 26, 1897). 55

Transit Facilities. "Electric Railways in Japan." Eastlake, W. Delano. St. Ry. J. 15:881 (Dec. 1899). 56

——. "Electric Railroad Building in Japan." Railroad Gaz. 30:362 (May 20, 1898).

Jersey City, N. J.

Description and Statistics of Jersey City, N. J., in 1880; History to 1880. Census. See 1-7. 57

Electrolysis in Jersey City. Knudson, A. A. Elec. Eng. 27:228 (Feb. 23, 1899); Engng. News 41:76 (Feb. 2, 1899); Engng. Rec. 39:233 (Feb. 11, 1899). 58

"Municipal Condition of Jersey City." Quinby, Isaac N. p. 353 Proc. Second Natl. Conf. for Good City Govt., 1895. See 6-18b. 59

Settlements. Whittier House. Anon. Outlook Dec. 1893, May, 1895, 57:389 (Oct. 9, 1897), 59:188 (May 21, 1898); Mun. Aff. 2:458 (Sept. 1898). 60

Water Supply. "Reply to the Expert Report on the Proposed Jersey City Water Contract." Eng. News Feb. 4, 1897.

——. "Jersey City's Water Supply." City Govt. 4:99 (March, 1898); Engng. Rec. 38:112 (July 9, 1898).

——. "Report on the Jersey City Water Question." Rafter, George W. Eng. News 37:45 (Jan. 21, 1897); Eng. Rec. Jan. 23, 1897. 61

——. "The Jersey City Water Works." Engng. Rec. 42:56 (July 21, 1900).

——. "The Waste of Water in Jersey City." Engng. Rec. 41:145 (Feb. 17, 1900).

"**Johannesburg** of To-day." Key, A. Cooper. Cassier's 14:3 (May, 1898). 62

"**Kalamazoo, Mich.**, City Government in." Bondeman, Dallas. Ann Arbor, Studies in Finance and History, Michigan Univ. Article in Vol. I, No. 6, Dec. 1895. 25c. 63

Kansas.

"A Typical Kansas Community." White, William A. Atlan. 80:171 (Aug. 1897). 64

"Water, Electric Light and Gas Plants." (Private or Municipal Ownership). Thirteenth Annual Report of the Kansas Bureau of Labor and Industrial Statistics, 1897. (Re-printed in pamphlet form, Topeka, 1898). 65

"**Kansas City, Kans.**, Electrolysis at." Blake, Lucien I. Engng. Rec. 40:239 (Aug. 12, 1899). 66

Kansas City, Mo.

"Municipal Condition of Kansas City." **Hopkins**, Henry. pp. 233-248 "Proc. of the Louisville Conference for Good City Government," 1897. See 6-18d. 67

"Pavements, Kansas City." Sci. Am. Sup. Feb. 14, 1885; Engng. News Dec. 13, 1885; J. Assoc. Engng. Soc. 12:180 (1893).

"Public Works in Kansas City." Engng. Rec. 40:52 (June 17, 1899).

Slums. "Kansas City's Patch." Commons July, 1897.

Transit Facilities. "System of the Metropolitan Street Railway Company in Kansas City." Anon. St. Ry. Jour. 14:2 (Feb. 1898); Elec. W. & E. 36:513 (Oct. 6, 1900).

——. "Early Street Car Days in Kansas City." Elec. Rev. 31:13 (July 14, 1897).

——. "Street Railway Franchises." Ann. Am. Acad. Pol. Sci. 13:276 (March, 1899).

Karachi, India.

"The Shone Sewerage System at Karachi." Strachan, James. Ind. Engng. April 3, 1897, Engng. Rec. 39:592 (May 27, 1899). 68

"**Keene, N. H.**" Fiske, Francis S. New Eng. M. 17:225 (Oct. 1897). 69

Kentucky.

"Primary Elections in Kentucky." McDermott, Edward J. N. Y. Conference on Practical Reform of Primary Elections, p. 40. Chicago, Hollister, 1898. 8vo, 150 pp. Paper. 70

"**Kettlewell, Eng.**, The New Water Works at." Rodwell, A. San. Rec. 23:186 (March 3, 1899). 71

"**Khandwa [India]**, Water Works." St. Clair, L. M. Ind. Engng. March 27, 1897. 72

"**Kewanee [Ill.]** Sewerage System, Construction of." Quade, J. C. Mun. Engng. 18:163 (March, 1900).

Kingston, Eng.

"Sewage Disposal, Kingston-on-the-Thames, England." Fuertes, James H. Engng. Rec. 39:424 (April 8, 1899). 73

Kitchens, Public.

"Die Volksküchen—Motive, Bedeutung, Organization, etc." Morgenstern, Lina. Berlin, Stuhrsche Buchh. 1883. 2m. 74

"Wiener Volksküchen." Kühn, Jos. Wien, Seidl u. Sohn, 1876. 2m. 75

"**Knoxville, Tenn.**, History of." Caldwell, Joshua W. See 14c. 76

Königsberg [Ger.] Sewerage. "Kanalisation d. Stadt Königsberg." Becker, G. Berlin, Ernst & Kron, 1890. 5m. 77

"**Kowloon** Water Works, The." Cheetham, W. Ind. Engng. Sept. 25, 1897. 78

Küchen i. W. [Germany].

Housing. "Beschreibung des Arbeiter-Quartiers und der damit zusammenhängenden Institutionen von Staub & Co. in Küchen bei Geislingen in Württemberg." Staub, A. Stuttgart, Hallberger, 1868. 26m. 79

——. "Cités Ouvrières de MM. Staub et Ce. à Küchen." Nouv. Annales de la Const. p. 100, 1869.

Labor and its Relation to the Municipality, Condition of Laborers in Cities, Day Labor vs. Contract System, Sweating. (See also **Housing, Unemployment**).

See also Boston, Chicago, Detroit, Germany, London, Maryland, Massachusetts, New York, Ohio, Paris, Philadelphia, Rochester, Shoreditch, United Kingdom, Washington.

"Civil Service Reform in its Bearings upon the Interests of Workingmen." Welsh, Herbert. Proc. Natl. Civil Service Reform League, Washington, 1895. P. 116. 80

——. "The Application of the Civil Service Rules to Public Laborers." Russell, Charles Theodore, Jr. P. 49 Proc. Natl. Civil Service Reform League, Buffalo, 1892. 81

"Contracts with Workingmen upon Public Works." Labor Bulletin, Mass., No. 10, p. 56 (April, 1899).

"Contract System, The." Perry, George R. Pp. 112-114 in "Proceedings of the Third Annual Convention of the League of American Municipalities, 1899." 8vo, 148 pp. Paper. 82

"Day Labor and Contract System on Municipal Works, A Comparison of." Commons, John R. American Federationist, Serial, Jan. 1897 to Feb. 1898, with letters from officials, Yale R. 5:428 (Feb. 1897); Mun. Aff. 4:294 (1900); Perry, George R. Public Improvements 1:279 (Oct. 1, 1899); City Govt. 7:56 (Sept. 1899); Snow, F. Herbert. Am. Fed. 6:124, 155 (Aug. Sept. 1899). 83

——. "Contracts given out by Public Authorities to Associations of Workmen." (Report to Labor Department, Board of Trade). R. of Rs. Art. Schloss, D. F. London, Eyre & Spottiswoode, 1897. 346 pp. 1s. 6d. 84

——. "Direct Municipal Employment." New Time 2:64 (Jan. 1898).

——. "Economics of Direct Employment, The." Fabian Tract No. 84. London, The Fabian Society, July, 1898. 15 pp. 1d. 85

Employment Bureaus, etc. "Arbeitsbureaus und arbeitsstatistische Aemter." v. Schönberg, G. Vol. I, pp. 970-978 Conrad, 2d ed., 1898. See 2-10. 86

"Labor and Municipalities." Mun. J. & London 8:439 (April 7, 1899).

Municipal Employment in Foreign Countries. "Les Conditions Municipales du Travail à l'Étranger." Veber, Adrien. R. Municipale 3:2041 (April 14, 1900). 87

"Municipal Progress and the Living Wage." Means, D. MacG. Forum 20:11 (1895). 88

Municipal Work. "L'Esecuzione ad Economia dei Lavori Municipali." Bacchi, Riccardo. Riforma Sociale 10:254 (March, 1900). 89

"Municipalities as Employers of Labor." Real Est. Rec. & Guide Nov. 5, 1892, p. 570.

"Organized Labor, The Relation of Municipalities to." Lavery, James A. Prog. Age 16:381 (Aug. 15, 1898). 90

Pensions. "City Retirement Funds." City Rec. 2:185 (March 16, 1899). (See also **Pensions**). 91

"Public Work and How to do it." Baxter, Sylvester, and George E. Hooker. R. of Rs. 15:435 (April, 1897). 92

Regulation by Municipalities. "De l'Intervention des Municipalités dans la Reglementation du Travail." Pensa, Henri. Paris, Berger-Levrault, 1891. 8vo. 2 fr. 93

Relation of the Municipality to Labor. "La Politica Municipale del Lavoro." Critica Sociale 10:72 (March 1, 1900). 94

"Sanitation, Workingmen and." Wingate, Charles F. Am. Fed. 4:6 (March, 1897). 95

Statistical offices. (See Employment Bureaus above).

Sweating. "Government Sweating in the Clothing Contracts." MacDonald, J. A. New R. 11:471 (1894). 96

——. "Legislation on Sweating." Lee, J. Am. J. Soc. Sci. 30:105, 138 (1892), 31:63 (1893). 97

——. "Report of the Committee of Manufactures on Sweating." (John DeWitt Warner, Chairman). H. R. Report No. 2309. Washington, D. C., Government Printing Office, 1893. (Sweating in New York, pp. 4, 181; Chicago, p. 66; Boston ,p. 97; Philadelphia, pp. 34, 212; Rochester, N. Y. p. 57). 98

——. "Reports from the Select Committee of the House of Lords on the Sweating System." Parliamentary Reports and Documents, 1888, 1032 pp.; 1889, 3 vols., 633, 183 and 711 pp. Index to evidence taken before the House of Lords on the Sweating System, 1889. Two vols., 535 and 290 pp. 99

——. "Report of the Lords upon the Sweating System." Potter, B. 19th Cent. 27:885 (1890). 100

Labor and Its Relation to the Municipality—*Continued.*

——. "Sweating: its Cause and Remedy." London, Fabian Society, 1895. Fabian Tract No. 50. 15 pp. 1d. 1

——. Sweating. Heather-Bigg, A. 19th Cent. 36:665 (1894); Lee, J. Am. J. Soc. Sci. 30:105 (1892), Char. R. 2:100 (1892); Moran, F. J. C. No. Am. 166:757 (June, 1898); Schloss, D. F. Fortn. 48:835 (1887), 55:532 (1890), Sat. R. 69:557, 723 (1890); J. Soc. Arts 36:279 (1888); White, Henry. B. Dept. Labor May, 1896, p. 360; anon. Am. J. Soc. Sci. 31:63 (1894). 2

——. "Sweating in the English Tailoring Trade." Potter, B. 19th Cent. 24:161 (1888). 3

"Wages, in the United States and Europe, 1870-1898." (Statistics given for Paris, Liege, London, Manchester, Glasgow, New York, Chicago, Philadelphia, Boston, Baltimore, Cincinnati, New Orleans, St. Louis, St. Paul, San Francisco, Richmond, Pittsburg and Allegheny). Bulletin of the Dept. of Labor, No. 18, p. 665 (Sept. 1898). 4

——. "Rates of Wages paid under Public and Private Contract." (Cities of Baltimore, Boston, New York and Philadelphia). Stewart, Ethelbert. Bulletin of the Department of Labor, No. 7, p. 721 (Nov. 1896); Labor Bulletin Mass. No. 1, p. 1 (Jan. 1897), No. 4, p. 1 (Oct. 1897); Lend a H. Jan. 1897. 5

——. "Wages and the Cost of Living in the Garment Trades." Eaton, I. Am. Statis. Asoc. 4:135 (1895). 6

"Working Population of Cities, and what the Universities owe them." Swift, Morrison I. Reprinted from Andover R. 13:589 (1890). 7

Laboratories, Municipal. (See under **Paris,** Food Inspection, and **Peoria, Ills.**)

Lafayette, Ind.

"Pavement History of Lafayette." Eldridge, W. K. Mun. Engng. 19:317 (Nov. 1900). 8

——. "Bacterial Studies of the Healthfulness of the Street Pavements of Lafayette, Ind." Luten, Daniel B. Engng. News 44:242 (Oct. 11, 1900). 9

Lancaster, Eng. "New Ideas from an Old City." Phillips, Ernest. Mun. J. & London 8:1283 (Dec. 1, 1899). 10

"**Lancaster, Pa.,** The Water Problem of." Engng. Rec. 39:474 (April 22, 1899).

Landsberg-on-the-Wartha, Prussia, Water Works of. Gesund. Ing. Nov. 30; Dec. 15, 1897.

"**Laodicea, Asia Minor,** The Water Works of." Wegmann, Edward. Engng. Rec. 40:354 (Sept. 16, 1899). 11

Latrines, Public. (See under **Public Comfort Stations**).

Lawrence, Mass.

"City of Lawrence, Mass." Young, George H. New Eng. M. 17:581 (Jan. 1898). 12

Sewage Purification. "Recent Lawrence Experiments in Sewage Disposal." Clark, H. W. Engng. Rec. 40:696 (Dec. 23, 1899). 12a

——. "Experiments on Sewage Purification at the Lawrence Experiment Station during 1898." Engng. News 42:395 (Dec. 21, 1899).

——. See also Sewage Disposal under **Massachusetts.**

Water Works. "Purification of Water at Lawrence, Mass." Engng. News Nov. 30, 1893; Engng. Rec. Feb. 10, 1894.

——. "The New High Service System, Lawrence, Mass." Engng. Rec. 39:376 (March 25, 1899).

Leamington, Eng. "Another Municipal Spa." Mun. J. 9:967 (Dec. 7, 1900). 13

Lectures, Municipal. (See also **New York City**).

"Free Municipal Lectures." Char. R. 9:272 (Sept. 1899). 14

Leeds, Eng.

"Leeds." Hepper, John. Surveyor 17:481 (May 4, 1900). 15

"Lessons from Leeds." London 6:771 (Sept. 23, 1897). 16

Sewage Disposal. Harris, Norfleet. See 56-40a; also Engng. Rec. 40:529 (Nov. 4, 1899); San. Rec. 23:91, 115 (Feb. 3, 10, 1899). 17

——. "Sewage Treatment and Experiments at Leeds." Anon. Surveyor 18:278 (Sept. 7, 1900), San. Rec. 26:206 (Sept. 7, 1900), Eng. (Lond.) 90:232 (Sept. 7, 1900), Engng. N. 44:183 (Sept. 13, 1900), Engng. Rec. 42:272 (Sept. 22, 1900). 18

"Slumdon, Leeds." Foster, D. B. Leeds, 1897. 32 pp. Ill. See also London 6:773 (Sept. 23, 1897), Mun. J. 9:300 (April 20, 1900). 19

"Street Cleaning in Leeds." Darley, George. Mun. J. & E. 9:168 (Dec. 1900). 20

Transit Facilities. Leeds Municipal Electric Tramways. Elec. R. (London) 41:275 (Aug. 27, 1897); Ry. World 6:223, 366 (Aug., Dec. 1897), 7:142, 145 (May, 1898), 8:184 (May, 1899); London 6:772 (Sept. 23, 1897); Elec. World (abstract from the London Electrician, Nov. 11, 1897) 30:640 (Nov. 27, 1897); Ty. & Ry. World 8:375 (Oct. 5, 1899); Mun. J. & London 8:757 (June 30, 1899). 21

——. "Report of the Sub-Highways (Tramways) Committee of their Investigations as to Tramway Traction, and Recommendations Thereon." (References to experience of Birmingham, Darlaston, Newcastle, Edinburgh, Glasgow, Brixton, Croydon, Isle of Man, Brussels, Paris, Havre and Roundhay). Leeds, 1895. 169 pp. 22

——. "Report on the Various Systems of Tramway Haulage by the City Engineer." Hewson, Thos. Leeds, 1895. 43 pp. 23

Legislation, Political and Municipal. (See under **United States** and **United Kingdom**).

Leicester, Eng.

"Leicester as a Municipality." Mun. J. & London 8:878 (Aug. 4, 1899).

Lighting. "Leicester's Gas and Electricity Undertaking." Mun. J. 9:764 (Sept. 28, 1900).

"Markets, Leicester's Municipal." Mun. J. 9:725 (Sept. 14, 1900).

"Municipal Enterprise at Leicester." Mun. J. & London 8:973 (Sept. 1, 1899).

Leicester, Mass.

"Historical Sketch, Leicester." Storey, John. Published by the Town, 1895. 24

"Sewage Disposal by Intermittent Filtration at Leicester, Mass." Engng. News 43:231 (April 5, 1900).

"**Leighton Buzzard, England,** The Water Works of." Nichols, H. Bertram. Engng. Rec. 42:174 (Aug. 25, 1900). 25

Leipzig, Ger.

Buildings. "Leipzig und seine Bauten." Herausgegeben von der Vereinigung Leipziger Architekten und Ingenieure. Leipzig, J. M. Gebhardt, 1892. 856 pp. 30m. 26

Charities. "Individualstatistik der öffentlichen Armenpflege in Leipzig." Lehr, A. 1886. 27

History. "Geschichte der Stadt Leipzig von der ältesten bis auf die neuesten Zeit." Grosse, Karl. Leipzig, Alvin Schmidt, 1898. 8vo, 448 pp. 5m. 28

Housing: "Die Wohnungsverhältnisse der ärmeren Volksklassen in Leipzig." Hasse, Ernst. pp. 288-378, Hft. 31, Schr. d. Ver. f. Socialpolitik. 29

——. "Overcrowding of the Leipsic Poor." Millar, S. R. U. S. Consular Report No. 74, 1887, p. 48. 30

Pawnshop and Savings Institution, Municipal. Warner, Brainard H., Jr. Cons. Rep. 64:381 (Nov. 1900). 31

Prostitution. "Die Leipziger Sittlichkeitsbewegung." Oberbreyer. Leipzig, Werther, 1892. 8vo, 43 pp. 50 pf. 32

Sanitary Condition. "Leipzig, die Stadt in Hygienischer Beziehung." Leipzig, Duncker u. Humblot. 16m. 33

"**Leith [Eng.]** Sewage Disposal." MacBride, Robert J. See 56-40a. 34

"**Lemberg [Eng.]** Electric Tramways, The." Ry. World 6:351 (Dec. 1897).

Lexington, Ky.

Water Works. "Filtration of Lexington, Ky." Fire & W. May 1, 1897.

——. "Experience with Water Meters at Lexington, Ky." Charles, S. A. Engng. Rec. 41:471 (May 19, 1900); Fire & W. 28:2 (July 7, 1900), pp. 183-186 in "Proceedings of the 25th Annual Meeting of the American Water Works Association, Richmond, Va., May 15-18, 1900." 8vo, 216 pp. Cloth, $1. 35

Leyton, Eng.

"Local Life in Leyton." London 6:835 (Oct. 21, 1897).

"Refuse Disposal at Leyton." San Rec. 21:112 (Feb. 4, 1898).

"**Liberty, N. Y.**, Septic Sewage Disposal at." Engng. Rec. 42:146 (Aug. 18, 1900).

Libraries of Cities.

See also Australia, Baltimore, Boston, Bromley (Eng.), Brooklyn, Chicago, Cleveland, Cologne, Erie, Germany, Great Britain, Hornsey, London, Massachusetts, New York, Paris, Philadelphia, Salford, Washington.

"Books for the People." Mun J. & London 8:1235 (Nov. 17, 1899).

"Do Public Libraries Foster a Love of Literature among the Masses?" Chamber's 3:134 (Feb. 1900).

"English and American Libraries." Dewey, Melvil. London 6:622 (July 22, 1897). 36

"Establishment of Free Public Libraries." Fletcher, Wm. I. Citizen 1:8 (1895). Re-printed from his "Public Libraries in America." Boston, Roberts Bros., 1894. 169 pp. $1. 37

"Free Public Libraries." Pp. 28-53. "Methods of Social Reform and other Papers." By W. Stanley Jevons. London and New York, Macmillan, 1883. 383 pp. $3. Also Barber, H. H. Am. M. Civics 6:469 (1895). 38

"Free Libraries and the Community." Putnam, Herbert. No. Am. 166:660 (June, 1898). 39

"Great Public Libraries in the United States." Holden, Edward S. Overland 30:117 (Aug. 1897). 40

"Home Libraries." Birtwell, Charles W. p. 144 "International Congress," vol. V, 1893. See 43-99. 41

"Municipal Libraries and their Development." Southern, J. W. Library Association Record Oct. 1899. 42

"Public Libraries." Randall, E. O. City Govt. 7:97 (Oct. 1899); anon. Engng. Rec. 39:455 (April 15, 1899). 43

"Public Libraries." Greenwood, T. Fourth ed. revised. London, Cassell, 1892. 8vo. 2s. 6d. 44

"Public Libraries in America." Fletcher, Wm. I. Boston, Roberts Bros., 1894. 169 pp. $1. 45

"Public Libraries and Popular Education." Adams, Herbert B. Albany, University of the State of New York, 1900. 8vo, 271 pp. Paper, 40c. 46

"Recent Progress of Public Libraries." Fletcher, Wm. I. Citizen 1:56 (1895). 47

"Relations of City Government to Libraries." Rice, W. Lib. J. 12:364 (1887). 48

"Statistics of Public Libraries in the United States and Canada." Flint, Weston. Washington, D. C. Government Printing Office, 1893. Bureau of Education, Circular of Information No. 7. Whole No. 201. 49

"Sunday Opening of Public Libraries, The." Mun. J. 9:624 (Aug. 10, 1900).

"Value of Municipal Libraries." Taggart, Frederick J. Cal. Mun. 2:52 (March, 1900). 50

"Work of Libraries." Weeks, Anna R. City Govt. 1:75 (1896). 51

Lighting. (See also under **Municipal Control, Municipal Ownership**).

See also Amsterdam, Atlantic City (N. J.), Baltimore, Belfast, Berlin, Birmingham, Bolton (Eng.), Bombay, Borsbeke (Belgium), Boston, Bradford, Buffalo, Cambridge, Carlisle Chatham (Ont.), Chicago, Colomba, Columbus, Croydon (Eng.), Des Moines, Detroit, Dolgeville, Dublin, Edinburgh, England, Erfurt, Europe, Florida, Flushing (L. I.), France, Germany, Glasgow, Gloucester, Grand Rapids, Great Britain, Guayaquil, Hackney, Halle, Hamilton, Havana, Haverhill, Hudson County (N. J.), Hull, Hunan, Italy, Jacksonville, Leicester (Eng.), Liverpool, London, Louisville, Madison, (N. J.), Manchester (Eng.), Massachu-

Lighting—*Continued.*

setts, Negaunee, Netherlands, New York, New Westminster (B. C.), Oconomowoc (Wis.), Oliva, Paris, Penig (Ger.), Peoria (Ills.), Philadelphia, Plymouth, Ponce, Providence, Richmond (Va.), Rochester, Rouen, Russia, St. Pancras, St. Paul, San Francisco, Shaffhausen (Switz.), Sheffield, Shoreditch under London, Singapore, Springfield, South Shields (Eng.), Texas, Toledo, Trieste, United Kingdom, Vienna, Warsaw, Washington, Willesden, Zurich.

GENERAL AND COMPARATIVE.

(Articles applying to more than one kind of lighting and to competition between them).

"Artificial Lighting." Lambert, Carlton. Sanitarian 42:232 (March, 1899). 52

——. "Artificial Light, Modern Methods Compared." Jacobus, D. S. Mun. Rec. & Ad. Aug. 14, 1897. 53

——. "Recent Developments in Artificial Illumination." Morton, Henry. Prog. Age 17:510 (Nov. 15, 1899). 54

"Cost of Gas and Electricity, Relative." Humphreys, C. J. R. Engng. M. 4:240 (1892). 55

——. "Cost of Lighting by Gas and Electricity." Trotter, A. P. Electrician Dec. 6, 1895. 56

——. "Eclairage électrique actuel dans différents pays. Comparison de son prix avec celui de gaz à Milan, Rome, Paris, St. Etienne, Tours, Marseilles et New York." Paris, Michelet, 2 ed., 1890. 1 fr. 50c. 57

——. "Significant Comparisons as to the Cost of Light." Baxter, Sylvester. Advance Club Leaflets No. 1, Providence, 1891. 58

"Electric, Gas and Heating Plants." Adams, Alton D. Elec. R. 37:275 (Sept. 19, 1900). 59

"Gas vs. Electricity—The War of the Incandescents." Maxon, J. H. Prog. Age 16:148 (April 1, 1898). 60

——. "Gas vs. Electricity for Lighting Purposes." Cullinane, J. R. Am. Gas Light J. 72:648 (April 23, 1900); City Govt. 8:156 (June, 1900). 61

"Gas and Electric Lighting Works: Directory and Statistics." London, Hazell, Watson & Viney. Issued annually, 23d issue, 1899. 383 pp. 6s. 62

"L'Incandescence par le Gaz et le Pétrole, l'Acétyline et ses Applications." Dommer, F. Paris, Tignol, 1896. 12mo. Paper $1.40. 63

"Municipal Lighting." (Electric Lighting, Technical). Whipple, Fred H. Detroit, Mich., 1889. 8vo, 333 pp. Figs. 64

Progress in Gas and Electric Lighting and the Use of Water Gas. "Die Fortschritte der Gas und Elektrischen Beleuchtung und die Anwendung des Wasser-gases in Hygienischer Beziehung." von K. Hartmann. Wien, VI Internationaler Congress für Hygiene und Demographie zu Wien 1887. Arbeiten der Hygiensichen Sectionen. Heft VI, 1887. 65

"Why Some Lighting Plants do not Pay." Armstrong, F. C. Elec. Rev. 31:8, 32 (July 7, 21, 1897). 66

ACETYLENE.

Acetylene. Lewes, Vivian B. Prog. Age 15:600 (Dec. 15, 1897), J. Gas Lgt. 72:1408 (Dec. 20, 1898), J. Soc. Arts 47:105 (Dec. 23, 1898), 47:117 (Dec. 30, 1898), 47:129 (Jan. 6, 1899), 47:141 (Jan. 13, 1899), Prog. Age 16:581 (Dec. 15, 1898), 17:4 (Jan. 2, 1899), 17:25 (Jan. 16, 1899), 17:44 (Feb. 1, 1899); Tyler, H. L. Dom. Engng. Sept. 1899; Wilson, F. Cortez. San. Plumb. 23:18 (Dec. 1, 1899). 67

"Acetylene v. Ethylene." Eng. Dec. 16, 1898. 68

"Acetylene Gas, its Nature, Properties and Uses: also Calcium Carbide, its Composition, Properties and Method of Manufacture." Thompson, G. F. Liverpool, Spon, 1898. 8vo. 3s. 6d. 69

"Application of Acetylene to Lighting." Bullier, L. M. Prog. Age 15:514 (Nov. 1, 1897). 70

——. "L'Acétylène et ses Applications." Hubou, E. Soc. Ing. Civ. de France Feb. 1899. 71

——. "L'Eclairage a l'Acétylène." Cappelle, Ed. Paris, Retaux, 1898. 8vo. $1.25. 72

——. "L'Eclairage a l'Acétylène. Historique, Fabrication, Appareils, etc." Pellissier, Georges. Paris, Carré et Naud, 1897. 8vo. Cl. $2. 73

Lighting—*Continued.*

——. "Lighting by Acetylene." (Technical.) Gibbs, William E. New York, 2d ed., 1899. 12mo. Cl. $1.50. 74

Calcium Carbid and Acetylene Gas. Cons. Reports 55:331 (Nov. 1897); anon. Mun. Rec. & Ad. 2:606 (June 15, 1898), Prog. Age 17:33 (Jan. 16, 1899), 17:55 Feb. 1, 1899), 17:91 (March 1, 1899). 75

"Dangers of Acetylene." Jouanne, G. Prog. Age 16:76 (Feb. 15, 1898). 76

"Enrichment of Coal Gas by Acetylene." Goodwin, W. W. Prog. Age 16:256 (June 1, 1898). 77

"History, Status and Possibilities of Acetylene." Suplee, Henry Harrison. Engng. M. 13:787 (Aug. 1897). 78

Hygienic Standpoint. "Acetylene vom Hygienischen Standpunkte." Vértess, Josef. Gesund. Ing. July 31, 1898. 79

Illuminating Material. "Das Acetylene und seine Bedetung als Beleuchtungsmittel." Thomas, Karl. Zeitschr. d. Ver. Deutscher Ing. April 30, May 7, 1898. 80

Municipal Control and Ownership. (See **Municipal Control.**)

"Recent Research on Acetylene." Brown, G. E. Prog. Age 15:313 (July 15, 1897). 81

"Town Lighting with Acetylene." Prog. Age 16:551 (Dec. 1, 1898). 82

ELECTRICITY.

General References.

"A New Step in Electric Lighting." Mason, Frank H. Cons. Rep. 62:64 (Jan. 1900). 83

"Anweisung für den elektrischen Lichtbetrieb, etc." May, O. Frankfurt a. M., 1888. 84

"Das elektrische Licht in seiner neuesten Entwickelung, etc." Holthof, F. Halle, 1882. 85

Das elektrische Licht u. s. w. Uhland, W. H. Leipzig, 1883; Ditto, Behrend, G. Halle, 1883. 86

"Die Electricität und ihre Anwendungen zur Beleuchtung, etc." Graetz, L. Stuttgart, 1883. 2 Aufl., 1885. 87

Die elektrische Beleuchtung. Hagen, E. Berlin, 1885. Same title, Bernstein, A. Berlin, 1880. Ditto, Merling, A. Elektrotechnische Bibliothek, Bd. I, Braunschweig, 1882, 2 Aufl., 1884. Ditto, Urbanitsky, A. Wein, 1883, 2 Aufl., 1890. Ditto, Kruss, H. Hamburg, 1883. 88

"Die elektrischen Leitungen und ihre Anlage für alle Zwecke der Praxis." Zacharias, J. Wien, 1883. 89

"Die neuesten Fortschritte auf dem Gebiete der elektrischen Beleuchtung und der Kraftübertragung." Schellen, H. Köln, 1880. 90

"Eclairage à l'Electricité." Fontaine, H. Paris, 1877. 2d ed., 1879. 91

"Electric Lighting." Routledge, R. London, 1882. 92

"Electric Lighting and its Practical Application." Shoolbred, J. N. London, 1879. 93

"Electric Lighting Plants, their Cost and Operation." Buckley, W. J. Chicago, Wm. Johnston Printing Co., 1894. 275 pp. $2. 94

"L'Electricité et ses Applications." de Courmelles, Foveau. Paris, Schleicher Freres, 1900. 1 fr. 95

"La Lumière Electrique et ses Applications." Maissoneuve, S. Paris, 1886. 96

"La Lumière Electrique." Alglave, E., Boulard, J. Paris, 1882. 97

"Les Applications de la Lumière Electrique." van Wetter, R. Paris, 1888. 98

"Les Principales Applications de l'Electricité." Hospitalier, E. Paris, 1881. 99

"Manuel de l'Eclairage Electrique, etc." Armengaud. Paris, 1881. 100

"Notions Générales de l'Eclairage Electrique." Vivarez, H. Paris, 1884. 2 Aufl. 1886. 1

"Practical Electric Lighting." Holmes, A. B. London, 1887. 2

"The Electric Light in its Practical Application." Higgs, P. London, 1879. 3

"The Principles and Practice of Electric Lighting." Swinton, A. A. C. London, 1884. 4

"Ueber den gegenwärtigen Stand der elektrischen Beleuchtung." Schilling. München, 1888. 5

Lighting—*Continued.*

"Accounting for Electric Lighting Companies, Model Forms of." Clough, John Lyle. Mun. Engng. 19:67 (Aug. 1900). 6

——. "A Model System of Bookkeeping for Electric Lighting Companies." Clough, John Lyle. Mun. Engng. 19:251 (Oct. 1900). 7

——. "An Elaborate System of Records for a Lighting Company." Clough, John Lyle. Mun. Engng. 19:326 (Nov. 1900). 8

"American Electrical Work in Europe." Porter, Robert P. Elec. Eng. 24:498 (Nov. 25, 1897). 9

"Arc Lighting, Recent Progress in." Thompson, Elihu. Elec. Eng. 23:662, 705 (June, 16, 23, 1897). 10

——. "Arc Lamps and their Mechanism." Watts, Franklin. Elec. Eng. 24:322 (Oct. 7, 1897), 24:356 (Oct. 14, 1897). 11

——. "Arc Lighting in America and Europe." (Data from 20 large European and American Cities.) Wiler, C. Elec. Eng. 23:467 (May 5, 1897). 12

——. "Cost of Light from the Electric Arc." Adams, Alton D. Mun. Engng. 17:65 (Aug. 1899). 13

——. "Prices for City Arc Lights." (Editorial.) Elec. Eng. 26:486 (Nov. 17, 1898); Prog. Age 16:561 (Dec. 1, 1898). 14

——. "The Cost of Arc Lighting." Wait, H. M. Prog. Age 18:30 (Jan. 15, 1900). 15

"Boom in Electric Lighting." Mun. J. & London 8:1046 (Sept. 22, 1899).

"Central Station Heating in Connection with Electric Lighting Plants." Schott, W. H. Mun. Engng. 18:156 (March, 1900). 16

"Charging for Public Supply of Electricity, Methods of." Lackie, W. W. Elec'n. (Lond.) April 6, 1900. 17

"Combination of Central Stations of Electric and Water Works Plants." Fischer, Louis E. Mun. Engng. 18:240 (April, 1900). 18

"Constant Current Arc Lighting, the Development of." Biebel, H. M. Elec. R. 36:60 (Jan. 17, 1900). 19

"Construction and Maintenance of Electric Lines, Modern." Brophy, William. Am. Gas Light J. 67:609 (Oct. 18, 1897). 20

"Continental Electric Light Central Stations with notes on the methods in actual practice for distributing electricity in towns." Hedges, Killingworth. London, E. & F. N. Spon, 1892. 210 pp. $6. 21

"Economic View of Electric Lighting." Rosewater, Victor. Ind. 42:372 (1890). 22

"Elementary Principles of Electric Lighting." Swinton, A. A. C. London, 1886. 2 ed., 1889. 23

"Future of Electric Illumination." Wetmore, Jean. Am. Gas Light J. 72:91 (Jan. 15, 1900), 72:129 (Jan. 22, 1900). 24

"History and Present Position, Its Past: The Electric Light." Hepworth, T. C. London, 1879. 25

"Incandescent Lamps." Willcox, Francis W. J. Frankl. Inst. 149:282 (April, 1900), 149:353 (May, 1900), 149:419 (June, 1900). 26

——. "Poor Incandescent Electric Lighting." Monroe, H. L. Prog. Age 18:214 (May 15, 1900). 27

——. "The Present Efficiency of Incandescent Lamps." Randall, John E. Elec. Eng. 25:134 (Feb. 3, 1898). 28

"Industrial Uses, The Electric Light for." Crompton, R. E. London, 1880. 29

"Lamps, Arc and Glow: A Practical Treatise on Electric Lighting." Maier, J. London, 1886. 30

——. "Important Consideration in Lamp Tests when determining the best Available Lamp for Central Station Use." Doane, S. Everett. Elec. Eng. 25:735 (June 30, 1898). 31

"Large Districts, The Supply of Electricity to." Eng. (London) 86:251 (Sept. 9, 1898).

"Lighting and Traction, Electric." (Capital Invested, etc.) J. Frankl. Inst. 143:314 (April, 1897).

Machinery. "Electric Lighting, a Practical exposition of the art for the use of engineers, students and others." Crocker, Francis B. New York, Van Nostrand, 1896. 8vo, 444 pp. $3. 32

——. "Die Magnet und Dynamo-Elektrischen Maschinen, ihre Entwickelung, Construction und Praktische Anwendung." Schellen, H. Köln, 1879. 33

Lighting—*Continued.*

"Means of Stimulating the Demands for Electricity." Bishop, H. Collins. Mun. J. 9:571 (July 20, 1900). 34

"Metering from the Station Standpoint, Electric." Haskins, Caryl D. Elec. Rev. 31:82 (Aug. 18, 1897). 35

Municipal Control and Ownership. (See **Municipal Control.**)

"Population in the Cities of the World, Electricity and." Hale, R. S., and Codman, J. S. Elec. World 33:19 (Jan. 7, 1899). 36

"Profit, Electric Lighting for." Dow, Alex. Am. Gas Light J. 68:206 (Feb. 7, 1898), Elec. Eng. 25:135 (Feb. 3, 1898), Elec. Rev. 32:108 (Feb. 16, 1898), 32:124 (Feb. 23, 1898), Elec. World 31:148 (Jan. 29, 1898). 37

"Progress in Electric Lighting, Recent." Mun. J. & London 8:1074 (Sept. 29, 1899). 38

"Public Electric Lighting." Engng. Rec. 40:484 (Oct. 21, 1899).

"Rates, Electric Lighting." City Govt. 4:174 (May, 1898). 40

——. "Systems of Meter Rates." Debell, Edwin L. Elec. Eng. 27:116 (Jan. 26, 1899), Can. Elec. N. 9:31 (Feb. 1899). 41

"Reducing the Cost of Electric Light." Perry, Nelson W. Engng. M. 9:57 (1895). 42

"Refuse, Electric Light from City." Perry, Nelson W. Cassier's 13:99 (Dec. 1897). 43

"Small Lighting Plants." Reeve, Fred'k C. Elec. World 30:672 (Dec. 4, 1897). 44

——. "Electric Light Plants for Small Towns." Dow, Alex. Elec. Engng. 10:178 (Oct. 1, 1897), 10:232 (Nov. 1, 1897), Prog. Age 16:128 (March 15, 1898). 45

——. "Electricity Supply for Lighting and Tramways, with Special Reference to Small Towns." Boot, Horace L. P. San. Rec. 26:249 (Sept. 21, 1900), Surveyor 18:364 (Sept. 28, 1900), San. Rec. 26:268 (Sept. 28, 1900), 26:292 (Oct. 5, 1900). 46

——. "Electricity Supply for Small Towns." Brown, C. S. Vesey; Harris, G. M. Elec. Eng. (Lond.) June 22, 1900. 47

——. "Positive and Negative Economies in the Operation of Small Electric Light Plants." Roberts, E. P. Elec. Eng. 26:233 (Sept. 8, 1898). 48

——. "Why Some Small Electric Light Plants do not Pay." Cravath, J. R. Am. Gas Light J. 70:147 (Jan. 30, 1899), Elec. Eng. 27:59 (Jan. 12, 1899), 27:83 (Jan. 19, 1899). 49

"Treatise on Electric Lighting, A Practical." Gordon, J. E. H. London, 1884. 50

"Union of Electric Lighting and Traction Plants, The." Adams, Alton D. Cassier's 17:221 (Jan. 1900). 51

"Useful Information on Practical Electric Lighting." Hedges, Killingsworth. London and New York, 1879. 52

"Wires, Electric." Hopewell, Charles F. Prog. Age 15:463 (Oct. 15, 1897). 53

——. "Law of Electric Wires in Streets and Highways, The." Keasby, Edward Quinton. 2d ed. Chicago, Callaghan & Co., 1900. 8vo, 358 pp. 54

GAS.

General References.

"Both Sides of the Ledger." Humphrys, Norton H. Jour. Gas Lgt. 71:22 (Jan. 4, 1898), 71:75 (Jan. 11, 1898). 55

"Die Gasbeleuchtung." Tieftrunk, F. Stuttgart, 1874; Ditto, Mendlik A. Budapest, 1879. 56

"Die Gasindustrie der Gegenwart." Ilgen, F. H. W. Halle, 1873 57

"Gas Exhibits and Lighting." Brackenbury, C. E. Engng. Times Aug. 1900. 58

"Gas Light." Anon. Contemp. 78:710 (Nov. 1900), Prog. Age 18:538 (Dec. 15, 1900).

"Le Gaz et ses Applications." Mont-Serrat; Brisac. Paris, 1894. 16mo. $1.20. 59

"Handbook for Gas Engineers and Managers." Newbigging, Thomas. London & New York, 6th ed., 1898. 4to. $6. 60

"L'Industrie du Gaz." Levy, A. Paris, 1893. 8vo. Paper $5.40. 61

"Some Disputed Points among Gas and Water Experts." Wilkinson, John. J. Gas Light 75:1708 (June 26, 1900). 62

"Some Plain Words about City Gas Supplies." (With special reference to bad systems of New York, Brooklyn and Boston.) Eng. News Dec. 17, 1896. 63

"The Gas Industry." Builder June 4, 1898.

Lighting—*Continued.*

"Traité théorique et pratique de la fabrication du gaz, et de ses divers emplois à l'usage des ingenieurs, directeurs et constructeurs d'usines a gaz." Borias, Edmond. Paris, Baudry et Cie., 1890. 8vo. Cl. $7.75. 64

Accounts. "The Balance Sheet." Brearley, J. H. J. Gas Lgt. Nov. 29, 1898, Prog. Age 17:50 (Feb. 1, 1899). 65

——. "Gas Companies' Bookkeeping: A Practical Treatise on the Keeping of Gas Companies' Accounts." Brearley, John Henry; Taylor, Benjamin. London, Walter King, 1900. 66

——. "The Uniformity of Gas Accounts." Miller, C. O. G. Am. Gas Light J. 67:284 (Aug. 23, 1897). 67

"Benzol as an Illuminant, The Importance of." Kramer. Prog. Age 15:430 (Oct. 1, 1897). 68

Bibliography of Gas Lighting. "Litteratur des Gas- und Wasserfaches. Ein Verzeichniss von Büchern und Broschüren über Gasbeleuchtung und verwandte Beleuchtungsarten sowie für Wasserversorgung, Entwässerung und verwandte Gebiete." Steude, M. München, R. Oldenbourg. 8vo, 78 pp. 2m. 69

——. "Bibliography of Coal Gas." Chester, W. R. Nottingham, 1892. 8vo. Cl. $4.20. 70

"By-Product Coke Ovens as a Source of Gas Supply." Young, Peter. Prog. Age 18:184 (May 1, 1900). 71

"Candle Power: Its Present Relation to the Gas Industry." Lynn, John R. Prog. Age 18:256 (June 15, 1900). 72

"Chemistry of Gas Manufacture, The." Butterfield, W. J. Atkinson. Philadelphia, 1896. 8vo. Cl. $3.50. 73

"Coke Plant in Gasworks." Brackenbury, C. E. Engng. Times July, 1900. 74

Consumers. "Gas Consumers as Gas Proprietors." J. Gas Light 76:1262 (Nov. 20, 1900). 75

——. "Gas Works Management and Consumers' Interests." Mun. Rec. & Ad. 2:603 (June 15, 1898).

——. "The Unprofitable Consumer." Humphrys, Norton H. J. Gas Light 76:833 (Oct. 2, 1900). 76

"Consumption, Ways and Means of Increasing, Gas." Pooley, H. Prog. Age 15:380 (Sept. 1, 1897). 77

"Cost of Illuminating Gas and its Economy." Chessman, James. Van Nos. Eng. M. 30:274 (1884). 78

——. "Expert on the Cost of Gas." White, William Henry. City Govt. 7:23 (July, 1899). 79

"Dangers of Illuminating and Fuel Gas." Gerhard, William Paul. Prog. Age 18:24 (Jan. 15, 1900). 80

"Distributing Gas under Higher Pressure." Shelton, F. H. Engng. News 42:219 (Oct. 5, 1899). 81

——. "Gas Distribution in Relation to Modern Municipal Development." Canning, Thomas. (Size of mains, the precautions necessary in view of the newer condition of street paving, electrolysis of gas pipes, etc.) Gas World (London) June 19, 1897, Am. Gas Lgt. J. 67:87 (July 19, 1897). 82

——. "In What Manner Can the Normal Loss of Gas in Distribution be Most Largely Diminished." Gibbons, P. H. J. Gas Light 76:776 (Sept. 25, 1900). 83

——. "Leakage." Jenkins, E. H. Am. Gas Lgt. J. 66:950 (June 14, 1897). Prog. Age 15:270 (June 15, 1897). 84

——. "Locating, Determining and Laying of Street Mains and the Distribution of Gas." Gill, J. P. Am. Gas Lgt. J. 66:678 (May 3, 1897). (Continued in secceeding numbers.) 85

——. "Pipes and Piping." (Gas.) Russell, C. P. Am. Gas Lgt. J. 66:994 (June 21, 1897). 86

——. "Pumping Gas." Roberts, George. J. Prog. Age 17:491 (Nov. 1, 1899). 87

Engineering. "A Practical Treatise on the Manufacture and Distribution of Coal Gas." Clegg, Samuel. London, Trubner & Co., 1868. 4to, 411 pp, plates. 5th ed. 21s. 88

——. "King's Treatise on the Science and Practice of the Manufacture and Distribution of Coal Gas." Newbigging, Thomas; Fewtrell, W. T. London, William B. King, 1878. 4to, 3 vols. 444, 450, 417 pp. 89

Lighting—*Continued.*

——. "Modern Gas Engineering." Greenough, M. S. Jour. Assn. of Eng. Soc. 20:130 (Feb. 1898). 90

——. "Recent Development in Gas Engineering." Landis, Henry K. Pp. 197-213 in "Pro. Brooklyn Engineers' Club for 1899." 8vo, 233 pp. Paper $2. 91

——. "The Construction of Gas Works Practically Described." Herring, W. R. London, Hazell, 2d ed., 1893. 8vo. Cl. $2. 92

——. "The Construction of Gas Works and the Manufacture and Distribution of Coal Gas." Hughes, B. London, 1853. 6th ed., London, Richards, 1880. 93

"Enrichment of Coal Gas." Harper, George H. Prog. Age 16:252 (June 1, 1898); Livesey, George. J. Gas Light. 75:1200 (May 8, 1900). 94

"European Gas Works, Report upon." Herring, W. R. Prog. Age 17:176 (April 15, 1899), 17:192 (May 1, 1899), 17:213 (May 15, 1899), 17:238 (June 1, 1899). 95

"Foreign Countries, Gas in." Special Consular Report. Washington, Government Printing Office, 1891. 260 pp. 96

"Fuel Gas." Kitson, Arthur. Trans. of Assoc. of Civ. Engs. of Cornell Univ. June, 1897. 97

——. "A Comparison of Fuel Gas Processes." Slocum, F. L. J. Gas Lgt. 70:379 (Aug. 17, 1897). 98

——. "Chauffage et Eclairage par le Gaz." Germinet, G. Paris, 1876. 99

——. "Gas as Fuel." Foveaux, F. Am. Gas Lgt. J. 67:323 (Aug. 30, 1897). 100

——. "Gas Heating and Cooking." Levy, Auguste. Prog. Age 18:536 (Dec. 15, 1900). 1

——. "How can we make the use of Gas for Cooking more Universal." Doherty, Henry L. Prog. Age 16:506 (Nov. 1, 1898). 2

——. "Illuminating and Fuel Gas." Gerhard, Wm. Paul. Cassier's 17:224 (Jan. 1900). 3

——. "On Cooking by the Aid of Gas, and the Ventilation of Kitchens." Sugg, William. Gas World (London) June 19, 1897, Am. Gas Lgt. J. 67:1621 (Aug. 2, 1897). 4

——. "The Cost of Fuel Gas." Reichhelm, E. P. Prog. Age 16:447 (Sept. 15, 1898). 5

——. "The Present Status of Fuel Gas." Lynn, John R. Prog. Age 18:162 (April 16, 1900). 6

——. "Use of Gas for Domestic Heating and Ventilation." Beilby, George. Prog. Age 17:434 (Oct. 2, 1899). 7

"Garbage Gas Process, Mr. Smith's." Am. Gas Light J. 67:1011 (Dec. 27, 1897). 8

"Gasoline Gas Lighting Specifications." Prog. Age 18:36 (Jan. 15, 1900).

"Hygienic Effect of the Use of Gas, The." Miller, Thomas D. Prog. Age 18:263 (June 15, 1900), Am. Gas Light J. 72:966 (June 18, 1900). 9

"Incandescent Lighting, Twenty-five Years' Progress in." Swan, J. W. Elec. R. 31:267 (Dec. 1, 1897). 10

——. "Experiences with the Incandescent Gas Light." Humphrys, Norton H. Am. Gas Light J. 70:607 (April 24, 1899). 11

——. "High Pressure Gas for Incandescent Lighting." Onslow, A. W. J. Gas Light 76:1273 (Nov. 20, 1900). 12

——. "The Case for Incandescent Gas." Bellamy, R. C. London 6:740 (Sept. 9, 1897). 13

——. "The Real Meaning of Incandescent Lamp Efficiency." Willcox, Francis W. Am. Gas Light J. 68:816 (March, 1898). 14

——. "Use of Gas for Purposes other than Lighting." Blodget, C. W. Prog. Age 16:259 (June 1, 1898), Am. Gas Light J. 68:898 (June 6, 1898). 15

"Labor in Gasworks, Modern Methods of Saving; Inclined Retorts." Brackenbury, C. E. Engng. Times, May, 1900. 16

Legislation. "Some Disputed Points in Gas and Water Works." Newbigging, Thomas. J. Gas Light Nov. 28, 1899. 17

"Manufacture of Illuminating Gas." Sci. Am. 83:214 (Oct. 6, 1900).

——. "Die Steinkohlengasbereitung." Schaar, G. F. Leipzig, 1877. 2 Aufl., 1880. 18

——. "Gas Manufacture and Appliances." (Editorial.) Am. Gas Light J. 68:83 (Jan. 17, 1898). 19

——. "Handbuch der Steinkohlengas-Bereitung." Schilling, N. H. München, 1860.

Lighting—*Continued.*

3 Aufl., 1878. 20

——. "Modern Appliances in Gas Manufacture." Stevenson, F. W. Feilden's M. May, 1900. 21

——. "Modern Methods of Manufacturing Gas; With a Description of its Distribution under High Pressure." Shelton, Frederick H. Pro. Eng. C. 17:173 (July, 1900). 22

——. "Some Practical Observations on Gas Manufacture." Carpenter, S. Am. Gas Light J. 67:565 (Oct. 11, 1897). 23

——. "The Investigation of Gas Processes." Humphreys, A. C. Engng. N. 44:325 (Nov. 15, 1900). 24

"Meters, Gas." Wynkoop, Hubert S. Prog. Age 17:112 (March 15, 1899). 25

——. "Automatic Meters; With a Comparison of the Price Charged for Gas Consumed by Slot and Ordinary Consumers." Gas W. Aug. 4, 1900.

——. "Gas and Gas Meters." Wynkoop, Hubert S. Pop. Sci. M. 57:179 (June, 1900). 26

——. "Meter Testing." Doty, Paul. Prog. Age 18:91 (March 1, 1900). 27

——. "Prepayment Meters." Anon. Prog. Age 15:385 (Sept. 1, 1897); Strecker, A. H. Prog. Age 17:489 (Nov. 1, 1899), Am. Gas Light J. 71:806 (Nov. 20, 1899), McIlhenny, John D. Am. Gas Light J. 72:572 (April 9, 1900), Prog. Age 18:165 (April 16, 1900); Raynor, C. H. Prog. Age 16:262 (June 1, 1898); Ross, R. Am. Gas Light J. 69:349 (Sept. 5, 1898). 28

——. "The Prepayment Gas Meter." Am. Gas Light J. 72:771 (May 14, 1900). 29

"Monopolies, Gas." Prog. Age 18:316 (July 16, 1900). 30

Municipal Control and Ownership. (See **Municipal Control.**)

"Natural Gas." Oliphant, F. H. Prog. Age 17:104 (March 15, 1899). 31

"Nuisance Question in Gas Works, The." Shelton, Frederick H. Gas Light J. 70:333 (March 6, 1899), Prog. Age 17:109 (March 15, 1899). 32

"Pintsch Gas System To-Day." Shelton, F. H. Am. Gas Light J. 68:856 (May 30, 1898). 33

"Price of Gas." Botsford, Charles Hull. No. Am. 141:166 (1885). 34

——. "Differential versus Uniform Prices for Gas." Dean, Sedgwick. Prog. Age 18:89 (March 1, 1900), Am. Gas Light J. 72:412 (March 12, 1900). 35

——. "How to Reduce the Gas Bills." Chamber's J. Jan. 1897. 36

——. "X-Rays on the Gas Bill." Brackenridge, James. Am. Gas Light J. 67:882 (Dec. 6, 1897). 37

"Profits from Gas Undertakings in the United States and Great Britain." Mun. Rec. & Ad. 2:600 (June 15, 1898). 38

"Public Lighting by Gas and Electricity." Dibdin, W. J. San. Rec. 24:357 (Oct. 27, 1899), 24:381 (Nov. 3, 1899), 24:405 (Nov. 10, 1899), 24:429 (Nov. 17, 1899), 24:453 (Nov. 24, 1899), 24:473 (Dec. 1, 1899), 24:497 (Dec. 8, 1899), 24:521 (Dec. 15, 1899), 24:563 (Dec. 29, 1899), 25:1 (Jan. 5, 1900), 25:21 (Jan. 12, 1900), 25:44 (Jan. 19, 1900), 25:61 (Jan. 26, 1900), 25:85 (Feb. 2, 1900), 25:109 (Feb. 9, 1900), 25:173 (March 2, 1900), 25:221 (March, 16, 1900), 25:237 (March 23, 1900), 25:261 (March 30, 1900), 25:285 (April 6, 1900), 25:309 (April 13, 1900), 25:333 (April 20, 1900), 25:375 (May 4, 1900), 25:399 (May 11, 1900), 25:423 (May 18, 1900), 25:463 (June 1, 1900), 25:511 (June 15, 1900), 25:563 (June 29, 1900), 26:1 (July 6, 1900), 26:403 (Nov. 9, 1900), 26:445 (Nov. 23, 1900), 26:493 (Dec. 7, 1900), 26:535 (Dec. 21, 1900), 26:559 (Dec. 28, 1900). 39

"Review of the Gas Industry." Vautier, T heodore. Prog. Age 18:438 (Oct. 15, 1900). 40

"Sales, Gas, in the United States, Canada, England and Germany." Engng. News 39:43 (Jan. 20, 1898). 41

"Selling Gas." Copley, I. C. Prog. Age 15:228 (June 1, 1897); Am. Gas Lgt. J. 66:852 (May 31, 1897). 42

"Small Towns, The Lighting of." Harris, G. M. Am. Gas Light J. 73:131 (July 23, 1900). 43

——. "A Small Gas Works and Its Tribulations." M'Laren, J. Prog. Age 16:486 (Oct, 15, 1898). 44

——. "How to Avoid Competition in Small Towns." Schmidt, Emil G. Prog. Age 16:144 (April 1, 1898). 45

——. "The Business End of a Small Gas Works." Dole, S. Milo. Prog. Age 18:93

Lighting—*Continued.*

(March 1, 1900). 46

——. "The Lighting of Small Districts." Arch. & Cont. Rep. 58:68 (July 30, 1897). 47

——. "The Management of Lighting Plants in Small Towns." Petch, Thos. D. Am. Gas Light J. 67:249 (Aug. 16, 1897). 48

——. "Village Lighting: A Comparison." Shadbolt, R. G. Gas. Wld. (June 25, 1898); J. Gas Lgt. 72:16 (July 5, 1898). 49

"Statistics, Coal Gas." Prog. Age 17:559 (Dec. 15, 1899).

"Stoves, The Best Method of Introducing Gas." Britton, John A. Am. Gas Light J. 73:285 (Aug. 20, 1900); Prog. Age 18:523 (Dec. 1, 1900). 50

"Sunday Labor on Gas Works, The Minimizing of." J. Gas Light 76:1329 (Nov. 27, 1900). 51

"Suburban Gas Lighting." Dom. Engng. Nov. 1899. 52

"Taxation of Gas by Local Authorities, The." Carr, Isaac. Gas World (London), June 19, 1897. 53

"Text Book of Gas Manufacture for Students." Hornby, John. London, Bell, 1896. 12mo, pp. 276. Ill. Cl. $1.50. 54

"Use of Gas for Purposes other than Fuel." Douglas, Henry W. Prog. Age 17:89 (March 1, 1899). 55

"Valuation of Gas Works for Assessment, The." Newbigging, William. Gas Wld. June 25, 1898. 56

"Water Gas as an Illuminant." Strache, Hugo. Prog. Age 15:356 (Aug. 16, 1897). 57

——. "A Survey of the Position of Water Gas." Strache, Hugo. J. Gas Lighting (London) Jan. 5, 1897. 58

——. "Carburetted Water Gas." Brackenbury, C. E. Engng. Times, Sept. 1900. 59

——. "Carburetted Wätes Gas as a Coal Gas Auxiliary." Glasgow, A. G. Prog. Age 17:522 (Nov. 15, 1899). 60

——. "Carburetted Water Gas and its Use in Coal Gas Works." Sospicio, Henri. J. Gas Light 76:701 (Sept. 18, 1900). 61

——. "Chemical Composition and Technical Analysis of Water Gas." Earnshaw, Edward H. J. Frankl. Inst. 146:161 (Sept. 1898). 62

——. "Der Stand der Wassergas Frage." Strache, Hugo. Weiner Bauindustrie Zeitung Jan. 14, 1897. 63

——. "Hygienic Aspect of the Use of Water Gas." M'Walter, J. C. San. Rec. 26:379 (Nov. 2, 1900). 64

——. "Notes on Carburetted Water Gas." Gas Wld. Jan. 16, 1897. 65

——. "Observations on Carburetted Water Gas." Westcott, J. T. Am. Gas Lgt. J. 66:562 (April 12, 1897). 66

——. "Prof. Lewes on Carburetted Water Gas." Gas World (London), April 17, 1897. 67

——. "Recent Advances in Lighting by Water Gas." Strache, H., and H. Dicke. Jour. Gas Lgt. Oct. 26, 1897. 68

——. "The Manufacture and Application of Water Gas." Dellwik, Carl. Prog. Age 18:311 (July 16, 1900). 69

——. "The New Gas." Webber, W. H. Y. Gas World, June 16, 1900. 70

——. "The Past, Present and Future of Water Gas." Lewes, Vivian B. Prog. Age 16:272 (June 1, 1898), 16:298 (June 15, 1898). 71

——. "Water Gas and its Recent Continental Developments." Lewes, Vivian B. Prog. Age 18:290 (July 2, 1900); Gas World, May 5, 1900. 72

——. "Water Gas as a Remedy for the Prevalent Scarcity of Coal." Dicke, H. J. Gas Light 76:522 (Aug. 28, 1900). 73

STREET LIGHTING, LIGHTING OF PUBLIC BUILDINGS AND PLACES.

"Art in Street Lighting." Foote, Allen Ripley. Elec. Eng. 24:330 (Oct. 7, 1897); Prog. Age 15:465 (Oct. 15, 1897). 74

"Cost of Street Lighting." (Editorial). Engng. Rec. 38:397 (Oct. 8, 1898).

——. "Cost of Lighting by Incandescent Street Lamps." Adams, Alton D. Mun. Engng. 17:185 (Oct. 1899). 75

——. "Cost of Street Electric Lights." City Govt. 6:139 (June, 1899). 76

——. "Cost of Street Lighting." Marechal, Henri. Elec. Rev. Aug. 10, 1894. 77

"Electric Street Lighting." Boot, H. L. P. Prog. Age 15:437 (Oct. 1, 1897); Shei-

Lighting—*Continued.*

ble, Albert. Elec. Rev. 34:238 (April 12, 1899), Am. Gas Light J. 70:570 (April 17, 1899); Wait, H. H. Prog. Age 18:378 (Sept. 1, 1900). 78

——. "A Modern Street Lighting Plant." Damon, George A. Am. Elec. Oct. 1900. 79

——. "Arc Lamps for Street Lighting." Hesketh, Thomas. Elect'n (London), April 9, 1897. 80

——. "Arrangements of Incandescent Street Lamps." Adams, Alton D. Elec. R. 36:512 (May 16, 1900). 81

——. "Electric Lighting in Streets." Boot, H. L. P. London 6:659 (Aug. 5, 1897). 82

——. "Report from the Committee on Electric Street Lighting." Cappelen, F. W. Pro. Am. Soc. Mun. Imp. (5th yr.) Pt. II, p. 101 (Oct. 1898). 83

——. "Series Inclosed Arc Light for Street Lighting Service." Robb, William Lispenard. Mun. Engng. 18:379 (June, 1900), Am. Gas Light J. 72:1019 (June 25, 1900). 84

——. "Statistics on Electric Street Lighting." Cappelen, F. W. Mun. Engng. 19:255 (Oct. 1900). 85

——. "Street Lighting by Electricity." Stevens, F. J. Warden. Architect (London), April 30, 1897. 86

——. "Street Lighting by Series Alternating Current Arc Lamps." Rice, Arthur. L. Am. Elec. 12:379 (Aug. 1900). 87

——. "Street Lighting by Electric Lamps." Minshall, F. H. Elec. W. & E. 36:836 (Dec. 1, 1900). 88

"General Street Lighting." Clark, Walton. Progressive Age July 1, 1896. 88a

"Incandescent Gas Street Lighting." Sheldrake, J. H. Gas W. April 21, 1900, Am. Gas Light J. 72:766 (May 14, 1900). 89

——. "The Return to Gas in the Street Lighting of a Municipality." Yorke, E. H. Am. Gas Light J. 71:891 (Dec. 4, 1899). 90

——. "Welsbach Incandescent Gas Light for Utility and Economy in Street Lighting, The." Wilkiemeyer, H. Am. Gas Lgt. 66:957 (June 14, 1897), Elec. Engin. 23:707 (June 23, 1897), Prog. Age 15:276 (June 15, 1897). 91

——. "Welsbach Street Lighting." Cline, J. W. R. Prog. Age 17:156 (April 15, 1899). 92

Municipal Control and Ownership. (See **Municipal Control**).

"Proper Illumination of City Streets." Hopkins, Henry. Prog. Age 15:450 (Oct. 15, 1897); Elec. Eng. 25:731 (June 30, 1898). 94

"Public Buildings, The Lighting of." Handcock, H. W. and A. H. Dykes. Electrician (London) Feb. 19, 1897. 95

"Public Places, Illumination of Streets and." Pope, Franklin L. Engng. M. 9:261 (1895). 96

"Some Notes on Street Lighting." Jolliffe, J. T. Am. Gas Light J. 68:731 (May 9, 1898). 97

"Street Lighting." Hickenlooper, Andrew. Am. Gas Light J. 72:562 (April 9, 1900), Prog. Age 18:154 (April 16, 1900); Wait, H. H. Am. Elec. 12:380 (Aug. 1900). 98

"Lincoln [Eng.], The Sewage System at." McBriar, R. A. San. Rec. 24:163 (Aug. 25, 1899). 99

Lincoln, Neb.

"A City without a Park." Woodward, W. A. Public Imp. 2:147 (Feb. 1, 1900). 100

Liquor Problem in Cities.

See also England under United Kingdom, France, Germany, London, Minneapolis, New York, Norway, United Kingdom, United States.

"Centralized Administration of Liquor laws in the American Commonwealths." Sites, Clement Moore Lacey. New York, Columbia Univ., Macmillan, 1899. 164 pp. Paper, $1. 1

"Drink Evil and Its Cure, The." Herzfeld, A. G. Westm. April, 1897. 2

"Economic Aspects of the Liquor Problem." (Bibliography, p. 313). Koren, John. Boston & N. Y., Houghton M. & Co., 1899. 8vo, 322 pp. $1.50. 3

——. "Economic Aspects of the Liquor Problem." Twelfth Annual Report of the Commissioner of Labor. Washington, Government Printing Office, 1898. 275 pp.

——. "The Economics of Prohibition." Fernald, James C. New York, Funk &

Liquor Problem in Cities.—*Continued.*

Wagnalls, 1890. 8vo, 515 pp. $1.50. 4

"Excise Laws and their Enforcement." Pub. Opin. 19:486 (1895).

"Gothenburg Licensing System, The." Goadby, E. London, Chapman, 1895. 8vo, 1s. 5

——. "How the Gothenburg System Works." Bray, F. C. Chaut. 24:443 (Jan. 1897). 6

"Improved Saloons." Tekulsky, Morris and others. Municipal Program Leaflet No. 4, 1895. 12 pp. 5c. 7

"Legislation in the United States and Canada, Liquor." Fanshaw, E. L. London, Cassell, 1895. 8vo, 2s. 6d. 8

——. "Drunkenness." (Legislative Treatment of drunkenness, pp. 118 et seq.) Wilson, George R. London, Swan S. & Co., 1893. 8vo, 161 pp. 2s. 6d. 9

——. "Liquor and Law." Doane, William C. No. Am. 162:292 (1896). 10

——. "Liquor Legislation in Europe." Vidal Georges. Revue Pénitentiaire Dec. 1896. 11

——. "Sober by Act of Parliament." Mackenzie, F. G. London, Sonnenschein, 1894. 3s. 6d. 12

——. "The Liquor Problem in its Legislative Aspects." (An investigation made under the direction of C. W. Eliot, Seth Low, and J. C. Carter. Contains chapters on conditions in Maine, Iowa, South Carolina, Massachusetts, Pennsylvania, Ohio, Indiana and Missouri. Second edition, 1898, contains an account of the operation of the New York Liquor Tax Law.) Wines, F. H., and J. Koren. Boston, Houghton, Mifflin & Co., 1897. 349 pp. $1.25. 13

"Licensing at Home and Abroad, Liquor." Pease, Edward R. Fabian Tract No. 85 Oct. 1898. 14

"Municipal Drink Traffic." Fabian Tract No. 86 Nov. 1898.

"Penal Aspects of Drunkenness, The." Cummings, Edward. Char. R. 9:500 (Jan. 1900). 15

"Public Houses." Buxton, Noel. Contem. 77:556 (April, 1900). 16

Raines Law. (See Liquor Problem under New York State). 17

"Regulation of Saloons." Adams, S. A. Proc. of the Second Annual Convention of the League of American Municipalities, 1898. p. 69. Perry, Geo. R. City Govt. 5:69 (Aug. 1898). 18

"Saloon in Politics." Hall, Bolton; Crosby, Ernest H. Mun. Aff. 4:399 (June, 1900); Parsons, George Frederick. Atlan. 58:404 (Sept. 1886). 19

"Social Aspects of the Saloon in Large Cities." Ch. VIII, p. 210 "Economic Aspects of the Liquor Problem." Koren, John. Boston & N. Y., Houghton, M. & Co., 1899. 8vo, 322 pp. $1.50. 20

"Social Value of the Saloon." (With reference mainly to Chicago conditions). Moore, E. C. Am. J. Sociol. 3:1 (July, 1897). 21

"Sunday Observance Legislation." Judge, Mark H. Westm. July, 1897. 22

——. "Saloon and the Sabbath." Inglehart, Ferdinand C. No. Am. 161:467 (1895). 23

——. (See also articles on Sunday Closing under **New York City**).

"What Shall We Do with the Excise Question?" Miller, Warner. No. Am. 162:287 (1896). 24

Lisbon, Portugal.

Project for the Improvement of Lisbon. "Memoire sur le Projet d'Aggrandissement de la Ville de Lisbonne, comprenant l'Etablissement d'un Grand Port Maritime, le Création de Quartiers Nouveaux et le Chemin de Fer de Collarès." Thomé de Gamond, A. Paris, 1870. 25

Little Falls, N. Y.

"The Slow Sand Filtration Plant for Little Falls, New York." Engng. News 41:392 (June 22, 1899).

"**Little Falls, Minn.**, Water Contract, The." Engng. Rec. 42:183 (Aug. 25, 1900).

"**Little Rock, Ark.**, History of." Rose, George B. See 1-4c. 26

Liverpool.

"A Great English Seaport." Townsend, Horace. Chaut. 29:107 (May, 1899). 27

Baths. "Free Swimming Baths, Liverpool." Mun. J. & London 8:743 (June 23, 1899). 28

Docks. "Extension of the Liverpool Docks." Boyle, James. U .S. Consular Reports 56:45 (Jan. 1898); anon. Arch. Oct .22, 1897. See also Cassier's, April, 1898. 29

History of Liverpool. (See references p. 230 Gross' Bibliography of British Municipal History). 30

"Housing of the Working Classes in Liverpool, The." San. Rec. 25:179 (March 2, 1900); Mun. J. 9:789 (Oct. 5, 1900).

——. "Artisans' Dwellings in Liverpool." Sherman, Thos. H. U. S. Consular Reports Vol. XLVIII, No. 178, p. 415-421; also No. 117, 1890, pp. 284-303. 31

——. "Pioneers in Housing." Ilbert, Lettice. Econ. R. 9:450 (Oct. 16, 1899). 32

——. "Tenement Houses in Liverpool." Neal, James E. U. S. Consular Reports Vol. XLVIII, No. 178, p. 408-414. 33

Lighting. "Revolution in Public Lighting in Liverpool." Mun. J. & London 8:855 (July 28, 1899). 34

"Liverpool Corporation's Experiment." King, F. L. Arena 3:737 (1891). 35

"Municipal Government of Liverpool." Sharpless, Isaac. Haverford College Studies No. 11. 36

"Pavements, Etc., of Liverpool." Sherman, Thomas H. U. S. Consular Reports No. 117, pp. 284 to 303, 1890. 37

Sewage Disposal. Neal, Jane E. See 56-40a; also U. S. Consular Rep. No. 117, 1890, pp. 284-303. 38

"Street Trading, The New Liverpool By-Laws Regulating." (Peddling). Dowdall, Chaloner. Econ. R. 9:503 (Oct. 16, 1899). 39

——. "Street Trading Children of Liverpool, The." Burke, Thomas. Contemp. 78:720 (Nov. 1900); anon. Mun. J. 9:904 (Nov. 16, 1900). 40

Transit Facilities. Overhead Railway. Cottrell, S. B. Cassier's, 1898; anon. Elec. Rev. (London), Oct. 26, 1894, Jan. 29, 1897. 41

——. Liverpool Municipal Electric Tramways. Sherman, Thomas H. U. S. Cons. Rts. No. 117, 1890, pp. 284-303; anon. St. Ry. Rev. 7:398 (June 15, 1897); Ry. World 7:372 (Nov. 1898); London 7:715 (Nov. 10, 1898); Mun. J. & London 8:1025 (Sept. 15, 1899); Ty. & Ry. 9:117, 356 (March 8, Aug. 9, 1900). 42

——. "Rapid Transit in Liverpool." P. 36 "Rapid Transit in Foreign Cities." Parsons, W. B. New York, 1894. 43

——. "Reports of the Special Committees appointed by the Council on the 13th of March and 7th of May, 1897." Liverpool, 1897. 14 and 6 pp. 44

"Water Supply of Liverpool." Engng. News Aug. 18, 1892, p. 146.

——. "The Story of Liverpool's Water Supply." Mun. J. 9:917 (Nov. 23, 1900).

——. "The Water Works of Europe: London and Liverpool." Philadelphia, Commercial Museum, 1899. 8vo, 50 pp. Pamphlet. 45

Llandudno, Wales.

"The Municipal Works of Llandudno." San. Rec. 20:37 (July 9, 1897).

——. "The Sanitary Works of Llandudno." Little, W. San. Rec. 22:349 (Sept. 30, 1898). 46

Local Government and Institutions. (See under **Government, General References and Unclassified**).

Location of Cities. (See under **Population**).

Lodging Houses. (See under **Housing**).

"**Lombardy**, Communes of, from the VI. to the X. Century." Williams, William Klapp. J. H. U. Studies, Ninth Series, p. 233, 1891. Separate paper, 86 pp. 50c. 47

London.

Government, General References and Unclassified.

"Amalgamation of the City and County of London, Report of the Commission Appointed to Consider the." Parliamentary Reports and Documents, 1894. 2 Vols. 620 and 704 pp. 48

——. "Amalgamation of London." Harrison, F. Contemp. 66:737, Sat. Rev. 78:375, 400 (1894); anon. Hrps. Wkly. 39:15 (1895). 49

——. "Unification of London." Harrison, C. Fortn. 59:836 (1893); Knott, G. H. Am. Law R. 29:395 (1895); Whitmore, C. A. National 21:375 (1893). 50

——. "Unification of London, The Need and the Remedy." Leighton, J. London, Stock, 1895. 1s. 51

Boroughs, London. Mun. J. 8:637 (May 26, 1899), 9:217 (March 23, 1900), 9:877 (Nov. 9 1900); Spec. No. 3,776, p. 649 (Nov. 10, 1900). 52

——. "Boroughs of the Metropolis: A Handbook of Local Administration in London under Local Government Act, 1899." Hopkins, Albert Bassett. London, Bemrose & Sons, 1900. 8vo. Cloth, 7s. 6d. 53

——. "Councils London Borough." Mun. J. 9:880 (Nov. 9, 1900). 54

——. "Councils, Metropolitan Borough: Their Powers and Duties." Fabian Tract No. 100. London, Fabian Society, 1900. 8vo, 19 pp. Pamphlet, 1d. 55

——. "Elections Borough Councils." Mun. J. 9:819 (Oct. 19, 1900), 9:839 (Oct. 26, 1900).

——. "Mayors of London, The New (Borough)." Mun. J. 9:897 (Nov. 16, 1900).

——. "Metropolitan Borough Councils Elections: A Guide to the Election of the Mayor, Aldermen, and Councilors." Hunt, John. London, Stevens & Sons, 1900. 3s. 6d. 56

——. "New London Boroughs: The Electors' Guide and Handbook." London, Edward Lloyd, 1900. 12mo, 100 pp. Paper, 6d. 57

——. "Salaries, Borough Mayor's." Smith, J. E. Mun. J. & London 8:1002 (Sept. 8, 1899). 58

"City of London, The." London, Blades, East and Blades, 1884. 8vo, 171 pp. 59

——. "Analysis of the Accounts of the City of London Corporation." N. d. 2s. 3d. L. C. C. Doc. 152. (See also L. C. C. Docs. 169 and 177 (1893), on finances of city. Price 7d., 1s. 4d. respectively). 60

——. "The City: An Inquiry into the Corporation, its livery companies and the administration of their charities and endowments." (A bitter attack on the corporation and the companies). Gilbert, William. London, Daldy, Isbister & Co., 1877. 8vo, 376 pp. 7s. 6d. 61

——. "Commentaries on the History, Constitution and Chartered Franchises of the City of London." Norton, George. London, Longmans, 3d ed., 1869. 541 pp. 14s. 62

——. "Corporate and Municipal Reform of London." Hickson, W. E. Westm. 39:497 (1843); Monthly R. 115:223. 63

——. "Corporation of London: Decline and Fall of the." (Reform of London Govt.). Fraser's Magazine 49:3, 198, 318, 453, 561, 687 (1854), n. s. 13:769 (1876). 64

——. "Guilds of London." Chamb. J. 58:595 (1881); Westm. 108:1 (1878).

——. "Livery Companies of London, Bibliography of." Welsh, Charles. The Library 2:301-7 (1890). (For historical bibliography of the Livery Companies of London, see p. 303 Gross' Bibliography of British Municipal History). 65

——. "Livery Companies of the City of London, their origin, character, development and social and political importance." Hazlitt, W. Carew. New York, Macmillan, 1892. 8vo, 692 pp. $10.50. 66

——. "Report of the Commission on Livery Companies of the City of London." Parliamentary Reports and Documents, 1884. 5 Vols. 361, 819, 868, 633 and 488 pp. (For discussions of this report see Contempt. 47:1; Ed. R. 162:181; Macmil. 51:266; Nat. R. 5:268; Quar R. 159:40). 67

——. "London City, its people, buildings, traffic, history, streets. etc. Loftie, William J. New York, Scribners, 1890. $15. 68

——. "Statistical Vindication of the City of London." (An elaborate defense of the corporation). Scott, Benjamin. London, 3d ed., 1877. 8vo. (See also under History below). 69

"Counties, London and the." Ecl. M. 108:421 (1887). 70

"County Council, London." Ackworth, William M. 19th Cent. 25:418 (1889); Dick-

London—*Continued.*

inson, W. H. Mun. J. 9:813, 833 (Oct. 12, 19, 1900); Whitmore, C. A. National 12:781 (1889); anon. Quar. R. 170:226; Sat. R. 69:340 (1890). 71

——. "Annual Report of the London County Council, for year ending March 31, 1897." Quar. Rev. No. 373:259 (Jan. 1898). 72

——. "Attack on the London County Council, The." Wood, T. McKinnon. Contemp. No. 386, p. 202 (Feb. 1898). 73

——. "Commune, The London County Council towards a." Burns, John. 19th Cent. 31:496 (1892). "Towards Common Sense." Prothero, R. E. Same. 74

——. "Conservatives and the London County Council." National 21:175 (1893).

——. "Elections of London County Ciuncil." Lawson, H. L. W. Fortn. No. 374:197 (Feb. 1898); Whitmore, C. A. National 25:239 (1895). 75

——. "History of the First London County Council." Saunders, William. London, National Press Agency, 1892. 8vo, 628 pp. 10s. 76

——. "Impeachment of the London County Council." Fardell, T. G. New R. 6:257 (1892); "Defense of." Harrison, Charles. Same. 77

——. "London County Council and its Assailants." Hobhouse, Lord. Contemp. 61:332 (1892). 78

——. "London County Council: Its duties and powers according to the Local Government, Act of 1888." Gomme, George L. London, Nutt, 1888. 8vo, 5s. 79

——. "London County Council: What it is and what it does." London, Fabian Society, 1895. Fabian Tract No. 61. 15 pp. 80

——. "Lord Salisbury and the London County Council." Local Govt. J. 26:748 (Nov. 20, 1897). 81

——. "Papers prepared by the London County Council to be laid before the Royal Commission, 1893." (Government). P. S. King & Son. 1s. 11d. 82

——. "Proceedings of a Conference of Representatives of the London County Council and Local Authorities, Vestries and District Boards, to consider what Powers now possesed by the London County Council should be transferred to Local Authorities." L. C. C. Doc. 293, 1896. 4s. 83

——. "Sir John Lubbock, County Council and." Harrison, F. New R. 5:395 (1891). 84

——. "Statement as to the present powers and duties of the London County Council." L. C. C. Doc. 148, 1894. 1s. (See also L. C. C. Docs. 52 (1892, 7d.), 142 (1894, 5d.), 149 (1894, 5d.), 161 (1894, 3 1-2d.), on same general subject). 85

——. Work of London County Council. Beachcroft, R. M. National 24:828 (1895); Fox, G. L. Yale R. 4:80 (1895); Harrison, F. 19th Cent. 27:1026 (1890); Meath, Earl of. 19th Cent. 25:505 (1889); Webb, S. Contemp. 67:130 (1895). 86

——. (See also under Finance, Music Halls, Parks, Police, Sewage Disposal, Transit Facilities. London County Council abbreviated L. C. C. in listing its publications).

Elections. "Parliamentary and Local Government Franchise, 1898." L. C. C. Doc. 413. 7d. 87

Government of London. Act of 1888. Fortescue, Earl. 19th Cent. 24:481 (1888); Hobhouse, Arthur. Contemp. 53:773 (1888). 88

——. "London Government under Act of 1888." Firth, J. F. B. and Simpson. London, Knight & Co., 1888. 8vo, 20s. 89

——. Act of 1899, London Government. Ashley, Percy W. L. Mun. Aff. 4:481 (Sept. 1900); Collins, W. J. Contemp. 74:515 (April, 1899), Mun. J. 8:604 (May 12, 1899); Lambelin, Roger. Revue Municipale 2:1593 (Sept. 30, 1899); Pasquet, D. R. Paris No. 13, p. 123 (July 1, 1899); anon. Mun. J. 7:515, 8:265, 272, 333, 364, 618; 9:93 (Aug. 11, 1898, Feb. 2, 1900); San Rec. 23:175, 265 (March 3, 31, 1899); Quarterly R. 189:492 (April, 1899). 90

——. "The Government of London under the London Government Act, 1899." Seager, J. Renwick. London, P. S. King & Son, 1899. 12mo, 102 pp. Paper, 2s.; Cl. 2s. 6d. 91

——. "The London Government Act, 1899. A Brief Explanation of its Provisions." Slater, Edward T. London, London Reform Union, 1899. 8vo, 31 pp. Pamphlet, 1d. 92

——. "Die Stadtverwaltung der City von London: Vortrag gehalten in Berliner Handwerkerverein am 17 Jan. 1867." (Brief sketch of history and government). v. Gneist, Rudolf. Berlin, 1867. 8vo, 52 pp. 93

——. "Evils of Disunity in Central and Local Government, especially with ref-

London—*Continued.*

erence to the Metropolis." Chadwick, Edwin. London, Longmans, 1885. 8vo, 125 pp. 94

——. "Future Government of London." Gomme, G. L. Contemp. 66:746 (1894). 95

——. Government of London, General Articles on. Hickson, W. E. Westm. 41:553 (1844), 43:193, 228 (1845); Hobhouse, Arthur. Contemp. 41:404 (1882); Lubbock, John. Fortn. 57:159 (1892); National 24:530 (1894); Ed. R. 175:500 (1892); Pascoe, C. E. Appletons, 10:49, 234 (1873); Pennell, E. R. Nation 48:135 (1889); Scott, B. Contemp. 41:308 (1882); Shaw, Albert, Cent. 41:132 (1890), Ch. VIII, p. 222 "Municipal Government in Great Britain," see 1-6; Torrens, W. M. 19th Cent. 8:766 (1880); anon. Ed. R. 142:549 (1875); Gentleman's M. 14:31 (1875); Westm. n. s. 49:93 (1876)); Spec. 71:168 (1893). 96

——. "Greater London, and its Government, for Electors." Whale, George. London, Unwin, 1888. 12mo. 2s. 97

——. Local Government, London. Hare, J. Macmil. 7:441 (1863); Newall, W. Contemp. 22:73 (1873). 98

——. "Local Government and Local Taxation, excluding the Metropolis." Wright, R. S., and H. Hobhouse. London, Sweet & Maxwell, 1894. 6s. Supplement, London, 1888. 34 pp. Second edition including London. 8vo. Cl. 7s. 6d. 99

——. "London Government." (Chapters on Municipal Development in London, London County Council and its committees, Local Municipal Authorities, Poor Law in London, Educational Authorities, Cost of London Government.) Whelen, Frederick. London, Grant Richards, 1898. 8vo, 291 pp. Cl. 3s. 6d. 100

——. "London Government and How to Reform it." Firth, Joseph F. B. London, Kerby, 1882. 12mo. 1s. Also in "Local Government and Taxation in the United Kingdom." Edited by J. W. Probyn. London, Cassell, 1882. 1

——. "Municipal Co-operation in the Government of London, A New Proposal for." Engng. News 41:201 (March 30, 1899). 2

——. "Municipal London or London Government as it is and London under a Municipal Council." Firth, Jos. F. B. London, Longmans, G. & Co., 1876. 775 pp. 25s. 3

——. "New Scheme of London Government." (Opinions of Mr. E. A. Cornwall and Mr. Edric Bayley). London 6:1017 (Dec. 30, 1897). 4

——. "Organisation Municipal de Paris et de Londres, présent et avenir, L'." Guyot, Yves. Paris, Marpont et Flammarion, 1883. 12mo, 100 pp. 1 fr. 50 c. 5

——. "Reform of London [Government.]" Webb, Sidney. London, Published by the Eighty Club, 1892 and 1894. 8vo, 35 pp. 6

——. "Reform of London Government and of City Guilds." Firth, Joseph F. B. London, Swan, S. & Co., 1888. 8vo, 170 pp. 1s. 7

"Life and Labor of the People in London." Booth, C. London and New York, Macmillans, 1895. 9 vols. $15. Maps of London Poverty, etc., to accompany preceding, $1.50. (Vol. I, East, Central and South London; Vol. II, Streets and Populations Classified; Vol. III, Blocks of Buildings, Schools and Immigration; Vol. IV, East London Industries; Vols. V-VIII, Population Classified by Trades; Vol. IX, Comparisons, Survey and Conclusions.) 8

——. "Life and Labor of the People in London." Booth, C. J. Statis. Soc. 56:557 (1893); Clark, W. New Eng. M. n. s. 10:572 (1894). 9

——. "Life in Darkest London, A Hint to General Booth." Jay, A. O. London, Webster & Co., 1891. 1s. 10

Livery Companies. (See under City of London above.)

"London." Blackw. 166:460 (Oct. 1899).

"London, the City of Strange Contrasts." Holmes, F. M. Quiver May, 1899. 11

London, Government, Statistics, etc. pp. 826-832 Encyc. Soc. Ref. See 1-3. 12

"London as a Jubilee City." Statham, H. Heathcote. National No. 172, p. 594 (June, 1897). 13

"London by Night." Robinson, B. Fletcher. Cassell's 28:313 (Aug. 1899). 14

"Manual for 1899-1900, The London." Donald, Robert, Editor. London, Edward Lloyd, 1899. 12mo, 368 pp. Paper 1s.; cl. 1s. 6d. 15

"Municipal London." de Montmorency, J. E. G. Law M. & R. 23:210 (May, 1898); anon. Spec. No. 3,774, p. 554 (Oct. 27, 1900). 16

"Municipal Problems of London." Tyler, G. R. No. Am. 159:448 (1894). 17

"Municipal Problems of New York and London." Shaw, Albert. Am. R. of Rs. 5:282 (April, 1892). 18

London—*Continued.*

"Municipal Work in the City." London 6:867 (Nov. 4, 1897). 19
"Municipality of London." Harkness, M. E. National 1:395; 2:96 (1883); Newall, W. Contemp. 25:437 (1875); anon. Nation 66:179 (March 10, 1898). 20
"New London, The." Mun. J. & London 8:259 (March 3, 1899). 21
"Our Great City; or London the Heart of the Empire." Arnold-Forster, H. O. London, Cassell & Co., 1900. Ill. 75 cts. 22
"Recent Municipal Progress in London." Maltbie, Milo Roy. Mun. Aff. 2:221 (June, 1898). 23
"Reform, London." (Editorial.) San. Rec. 22:579 (Dec. 2, 1898). 24
"The Transformation of London." Ch. XV, pp. 412-436 in Frederic Harrison's "The Meaning of History." New York, Macmillan, 1894. 8vo, 482 pp. $2.25. 25
"The Problem of London." [Government.] Chambers' 76:225 (April, 1899). 26
"Two Babylons, London and Chicago." Stead, W. T. New R. 10:560 (1894). 27
"Two Cities: London and Peking." Little, Archibald. Fireside June, 1899. 28
"Vestries, Scenes and Scandals on the London." National R. 33:416 (May, 1899). 29
——. "The London Vestries, what they are and what they do, with map, table of vestries, etc." London, Tabian Society Tract No. 60, 1894. 19 pp. 1d. 30
——. "Wages of the London Vestry Employees, The." Hewart, Beatrice, Economic J. 8:407 (Sept. 1898). 31
"Year in London, A." Welby, Sir Reginald Earle. Mun. J. & London 8:365 (July, 28, 1899), Mun. Aff. 3:506 (Sept. 1899). 32
"Year Book, Metropolitan." London, Cassell (Annual.) 1s. 33

Abattoirs, Municipal. (Interview with Dr. Forman, Chairman of the L. C. C. Public Health Committee.) London 6:940 (Dec. 2, 1897); anon. London 7:489 (Aug. 4, 1898). 34
Advertising. "Sky Signs Act, London, 1891." Mun. Aff. 3:718 (Dec. 1899). 35
Amusements. "Capitals at Play: London." Robinson, B. Fletcher. Cassell's May, 1898. 36
Art. "Municipal Art in London." London 7:835 (Dec. 29, 1898). 37
——. "Continental Kiosques for London." London 6:644 (July 29, 1897).
——. "London Decorated." Nation 65:45 (July 15, 1897). 38
——. "Municipal Art in Camberwell." London 7:1 (Jan. 6, 1898).
"Barnes and Mortlake: Rising Suburbs." London 6:1009 (Dec. 30, 1897).
"Baths of London, Public." Anon. Mun. J. & London 8:1389 (Dec. 29, 1899); Surveyor Sup. Dec. 21, 1900. 39
——. Baths in Bethnal Green. Mun. J. 9:540 (July 13, 1900); Deptford, same 7:249 (April 21, 1898); Lambeth, same 6:569 (July 8, 1897), 7:431 (July 7, 1898); Lewisham, same 7:439 (June 4, 1898); Newington, same 7:205 (March 31, 1898); St. Marylebone, Architect (London) March 12, 1897; St. Pancras, Mun. J. 8:1069 (Sept. 29, 1899), 9:357 (May 11, 1900). 40
——. "Public Baths and Washhouses and Public Libraries." Gomme, G. L. London, P. S. King & Son, 1899. 4to, 73 pp. Paper, 2s. (L. C. C. Doc. No. 451.) 41
——. "The Popularity of Public Baths." London 7:729 (Nov. 17, 1898).
Battersea. (See under Lighting, Public Works below.)
Bermondsey. (See under Housing below.)
"Bethnal Green Calamity, Lessons from the." London 7:5 (Jan. 6, 1898).
——. Bethnal Green. (See also under Baths, Sanitation, Settlements.)
"Bridges of the Thames. How the City Fought in Parliament for a Monopoly." London 6:579 (July 8, 1897). 42
Buildings, Building Acts, London. "London Buildings." Bremner, C. S. Fortn. 72:291 (March, 1899). 43
——. "London and its Historic Buildings." Besant, Walter. London 6:969 (Dec. 16, 1897). 44
——. "London; as arranged by Sir Christopher Wren." Builder 33:587.
——. "London Building Laws." pp. 347-389 "Fire and Building Regulations in Foreign Countries," Spl. Consular Reports of the U. S. Vol. VIII, 1892. 45
——. "Metropolitan Building Acts." Fletcher, Banister. London, Batsford, 1882. 219 pp. 6s. 6d. 46

London—*Continued.*

——. "Metropolitan Building Acts, 1855-1882, The." Glen, W. C. and R. C. London, Shaw and Sons, 1883. 287 pp. 10s. 6d. 47

——. "New Streets and Buildings." Part IV, p. 66, Knight's "Annotated Model By-Laws of the Local Government Board." London, Knight & Co., 1890. 242 pp. 10s. 6d. 48

——. "Reliques of Old London upon the Banks of the Thames and in the Suburbs south of the River." Way, T. R. London, Bell & Co., 1899. 8vo, 114 pp. Cl. 21s. 49

——. "Report from the Select Committee on the Building Acts and Metropolis Management." Parliamentary Reports and Documents, 1890. 97 pp. 50

——. "Statutes Regulating London Buildings." Griffiths, William Russell. London, Clowes, 1893. 360 pp. 12s. 6d. 51

——. "Tribunal of Appeal under the London Building Act." Love, Charles H. London, P. S. King & Son, 1900. 8vo, 56 pp. Cl, 2s. 52

"Burial Grounds, The London." Holmes, [Mrs.] Basil. New York, Macmillan, 1896. 8vo, 339 pp. 53

"Camberwell Reviewed." Mun. J. 9:541 (July 13, 1900). (See also under Art above.)

Census. "Results of the first quinquennial Census of the County of London, taken on 29th March, 1896, with Memorandum." 8d. L. C. C. Doc. 379. 54

Charities. "Beggars, How London Deals with." Norton, Lord. No. Am. 161:685 (1895). 55

——. "Bitter Cry of Outcast London." Mearns, A. Pamphlet, 1883. Another, same title. Preston, W. C. Cupples, Upham & Co., 1884. 10 cts. 56

——. "Charities of London." Bisland, E. Cosmopol. 11:259 (1891); Shaw, B. Contemp. 3:1 (1866). 57

——. "Charities Register and Digest." London, Longmans, G. & Co. Published annually for the Charity Organization Society, edition for 1899. 725 pp. 10s. 6d. 58

——. "Children under the Metropolitan Asylum Board." Acworth, W. M. Char. Or. R. 3:288 (June, 1898). 59

——. "London Children." Vol. III, part II of Charles Booth's "Life and Labor of the People." 60

——. "Free Shelters, London." Holmes, F. M. Leisure Hour Feb. 1893. 61

——. "Hospitals of London." Bourne, H. C. Macmil. 66:362 (1892); Gigot, A. Fortn. 39:305 (1883); anon. Mun. J. 6:594 (July 15, 1897), 9:641 (Aug. 7, 1900). 62

——. "Metropolitan Infirmaries for Pauper Sick." Hart, E. Fortn. 4:459 (1866). 63

——. "Report of Committee upon the advantages which might be expected from the establishment of a hospital with a visiting medical staff, for the study and curative treatment of Insanity." L. C. C. Doc. 47, 1890. 1s. 9½d. 64

——. "Reports of the Select Committee of the House of Lords on Metropolitan Hospitals." Parliamentary Reports and Documents, 1890, 692 pp.; 1892, 293 pp. 65

——. "Suffering London." Hake, A. E. London, Scientific Press, 1892. 3s. 6d. 66

——. "Jewish Poor of London, The." Leisure Hour July, 1897. 67

——. "Kodak Views of London Charities." Lend a H. March, 1892.

——. "London Alms and London Pauperism." Quar. R. Oct. 1876. Reprinted by the New York Association for Improving the Condition of the Poor, 1877. 16 pp. 68

——. "London [Charity] Methods." Loch, C. S. Lend a H. 16:436 (1896). 69

——. "Lunacy in London." London 6:765 (Sept. 16, 1897). 70

——. "Outcast London." Mearns, Andrew. Contemp. 44:924 (1883). 71

——. "Outcast Poor, The." (London.) Lambert, Brooke. Contemp. 44:916 (1883). 72

——. "Parochial Charities of London." Hadden, R. H. 19th Cent. 9:324 (1881); James, W. H. Contemp. 33:67 (1878); Wilson, A. J. Macmillan 41:469 (1880). 73

——. "Poor in London." Lambert, B. Contemp. 44:916 (1883); Reaney, G. S. Fortn. 46:687 (1886). 74

——. "Poor Law in London." Ch. VI, p. 193 Frederick Whelen's "London Government." London, Grant Richards, 1898. 8vo, 291 pp. 3s. 6d. 75

——. "Poor Law Administration, London." Hollond, E. W. Contemp. 8:502 (1868). 76

——. "Poor Law Progress and Reform, Exemplified in the Administration of East

London—*Continued.*

London Union." Vallance, William. p. 158 "International Congress," vol. I, 1893, See 43-99. 77
—. "Poor Law, London Bill and the." Mun. J. & London 8:661 (June 2, 1899). 78
—. "Poor Relief of London." Lumley, W. G. J. Statis. Soc. 21:169, 308 (1858). 79
—. "Problems of a Great City, The." (London, Overcrowding, Charity, etc.) White, Arnold. London, Remington Co., 1886. 275 pp. 2s. 6d. 80
—. "Reforms for London Poor." Greville, Lady V. Fortn. 41:21 (1884). 81
—. "Riverside Parish, A." Besant, Walter. Chapter VIII, p. 240, "The Poor in Great Cities." New York, Scribners, 1895. $3. 82
—. "Salvation Army and the Poor of London." Peck, F. Contemp. 58:796 (1890). 83
—. "Salvation Shelter in London." Vivian, H. Sat. R. 80:862 (1895). 84
—. "Unendowed London Charities." Chignell, R. London, Cassell & Co., 1892. 1s. 85
—. "Whitechapel Pauperism." London 6:764 (Sept. 16, 1897). 86
—. "Year of London Poor, A." Mun. J. & London 8:1383 (Dec. 29, 1899). 87
City of London. (See City under General References above.)
Crossness. (See under Sewerage, Sewage Disposal below.)
"Croydon: Object Lessons for London." Mun J. & London 8:198 (Feb. 16, 1899). 88
"Defense of London." Wilkinson, Spenser. National No. 169:42 (March, 1897). 89
Deptford. (See under Baths.)
Docks. (See under Harbor Facilities below.)
"Ealing, Enterprising." London 7:281 (May, 5, 1898).
East End. "Das Ostende von London, ein soziales Nachbild." Fischer, Paul. Berlin, 1891. 30 pf. 90
—. "Crime, East End of London and." Jay, A. O. New R. 11:401, Ecl. M. 123:627 (1894). 91
—. "Industries of East London." Chignell, R. London, T. V. Wood, 1892. 1s. 92
—. East London Library. (See under Libraries below.) 93
—. "One Square Mile in the East End of London." (Population, Conditions, etc.) Bartley, George C. T. London, Chapman & Hall, 2d ed., 1870. 74 pp. Paper, 1s. 94
—. "Riverside of East London, The." Besant, Walter. Cent. 60:522 (Aug. 1900). 95
—. "Social Problem in East London, The." Barnett, Canon. Humanitarian (April, 1899). 96
—. "Twenty-five Years of East London." Barnett, Canon. Contemp. R. 74:280 (Aug. 1898). 97
—. "Work in an East End District." Cowper, Countess. 19th Cent. 18:783 (1885). 98
Engineering, Municipal. "Municipal London from an Engineering Standpoint." Binnie, Alexander R. London 6:611 (July 15, 1897). 99
—. "Municipal Engineering in London." Engng. Rec. Aug. 21, 1886. 100
Finance, Accounts. "La Comptabilité de la Cité de Londres." Heins, Maurice. R. Municipale 3:1641 (Oct. 21, 1899). 1
—. "Enactments as to London Rating." (List of Acts of Parliament, Local and Public, which have ever been passed relating to each parish in the present County of London—Extracts from Local Acts of Parliament of Clauses relating to Rating in Parishes in the County of London.) 1896. L. C. C. Doc. 243. 11s. 2d. Supplementary Reports, L. C. C. Docs. 331, (1897, 5d.), 339, (1897, 4s. 6d.), 362, (1897, 5d.), 416, (1899, 5d.), 417, (1899, 5d.), 452, (1899, 1½d.). 2
—. "Expenditure and Taxation, 1895-96; with explanatory memorandum." L. C. C. Doc. 382. 10½d. 3
—. "Finances, London's." Bruce, W. W. Mun. J. & London 8:564 (May 5, 1899). 4
—. "Local Taxation in London." Gomme, G. L. J. R. Stat. Soc. 61:442 (1898). 5
—. "Local Taxation of Rents in London." Hobhouse, Arthur. Contemp. 54:140 (1888). 6
—. "London County Council Finance." Chater, W. A. J. of Finance Jan. 1898. 7

London—*Continued.*

——. "Proceedings at the Conference of the Local Government and Taxation Committee with the Assessment Authorities, March, 1893, to March, 1894." L. C. C. Doc. 165. 5s. 6d. 8

——. "Report of Committee appointed to consider the best method of ascertaining the value of land throughout the Metropolis, irrespective of the value of buildings and improvements made by the owners; with Evidence." 1889. L. C. C. Doc. 55. 1s. 10d. (L. C. C. C. Docs. 127, 137, 138 (1893) on same subject. Price 2½d., 1½d., 2½d. respectively.) 9

——. "Report with respect to the Incidence of Local Taxation in London." L. C. C. Doc. 17, 1891. 9½d. 10

——. "Resolutions passed at a Conference between the Local Government and Taxation Committee of L. C. C. and representatives of Metropolitan Overseers and Assessment Committees, London School Board, Metropolitan Asylums Board, and the Receiver of Police, with a view to promoting uniformity in assessment." L. C. C. Doc. 440, 1899. 3½d. 11

——. "Taxation in London, Bitter Cry of the Taxed." Costelloe, B. F. C. Contemp. 65:293 (1894). 12

——. "Demands for changes in Taxation in London." Whitmore, C. A. National 21:375 (1893). 13

——. "Debt, Repayment of the Metropolitan." Hoare, Alfred. 19th Cent. 31:403 (1892). 14

Finsbury Park. (See under Parks below.) 15

"Fire Protection." Anon. London 7:20 (Jan. 13, 1898), 7:36 (Jan. 20, 1898), 7:52 (Jan. 27, 1898), 7:82 (Feb. 10, 1898), 7:141 (March 3, 1898), 7:156 (March 10, 1898). 16

——. "Fires in London and Paris during 1891." J. Statis. Soc. 55:137 (1892).

——. "The Fire Service in London." Fire & W. 22:435 (Dec. 4, 1897).

——. "The Great City Fire." Anon. Engng. Nov. 26, 1897; London 6:921 (Nov. 25, 1897); Fire & W. 22:428 (Nov. 27, 1897).

"Fogs, Can we get rid of?" London 6:1012 (Dec. 30, 1897). 17

——. "Electric Power and Light from City Refuse. The Shoreditch Enterprise." Sanitarian 39:313 (Oct. 1897). 18

"Garbage, The Disposal of, in London." Real Estate Rec. & Guide April 4, p. 566, 1896. See also 56-40b. 19

——. "London House Refuse." Johnstone, Ralph W. Public Health Nov. 1899. 20

——. "Refuse Destruction in the Metropolis." San. Rec. 26:420 (Nov. 16, 1900). 21

"Guildhall of the City of London, Guide to, and the Municipal Work Carried on therein." Baddelley, J. J. London, Simpkin Marshall, etc., 1898. 8vo, 206 pp. 1s. 6d. 22

Hackney. (See under Lighting.)

"Hammersmith Reviewed." Mun. J. 9:457 (June 15, 1900). (See also under Lighting below.) 23

Harbor Facilities. "Information relating to the Docks, River and Port of London, with reference to the Resolution of the Council, 'that it is in the best interest of London to improve its shipping by improved and cheaper dock accommodation.'" Part I, 1s. 8½d.; Part II, 1s. 8½d.; Part III, 1s. 1½d. L. C. C. Doc. 434. n. d. 24

——. "Public Control for London Docks." (Editorial.) Mun. J. 9:145 (Feb. 23, 1900). 25

——. "The London Docks." Mun J. 8:1340 (Dec. 15, 1899), 9:140 (Feb. 23, 1900).

——. "The River, the Docks and the Port: London." Owen, Douglas. London, C. E. Ferry & Sons, 2d ed., 1900. 8vo, 80 pp. 1s. 26

——. (See also under Thames below.)

"Higher Life of London." Besant, Walter. Outlook April, 1897. 27

History. "London." Loftie, William J. London, Longmans, G. & Co. (Historic Town Series), 1892. 242 pp. $1.25. 28

——. "Ancient Customs of the City of London." Morgan, John de. Green B. 10:312 (July, 1898). 29

——. Bibliography of History of London. (See p. 286 Gross' "Bibliography of British Municipal History.")

——. Buildings, Historic. (See under Buildings above.)

London—*Continued.*

—. "Elizabethan London." Mun. J. & London 8:1217 (Nov. 10, 1899).

—. "Essay on the Growth of the City of London, etc." (1682.) pp. 451-478, 501-513, 515-518, Vol II, "Economic Writings of Sir William Petty." Edited by Charles H. Hull. Cambridge, University Press, 1899. 30

—. "Hanse of London." pp. 279-280. Vol. II Palgrave. See 1-2. 31

—. "History of London." (Especially pp. 222-230 on the Government of the City.) Besant, Walter. London, Longmans, 1893. 8vo, 256 pp. 75 cts. 32

—. "History of the twelve great livery companies of London." Herbert, William. London, 1836-7. 2 vols. 8vo. (See under City in general references above.) 33

"Historical Charters and Constitutional Documents of the City of London." Birch, Walter de Gray. London, 1887. 8vo, 338 pp. 34

—. "How the City of London Maintained its Charter." de Morgan, John. Green Bag 9:498 (Nov. 1897). 35

—. "London and the Kingdom: a history derived mainly from the Archives at Guildhall in the custody of the Corporation of the City of London." Sharpe, Reginald R. London, Longmans, 1894-5. 3 vols. 8vo. 10s. 6d. each. 36

—. "London in the Queen's Reign." Cook, Theo. A. Cassell's M. July, 1897. 37

—. "London in the Reign of Victoria." Gomme, G. Laurence. London, Blackie & Son, 1898. 8vo, 256 pp. Cl. 2s. 6d. 38

—. "London: A Short History with Maps and Illustrations." Meiklejon, M. J. C. London, Holden, 1898. 8vo, 262 pp. 1s. 6d. 39

—. "Modern History of the City of London: A Record of Municipal and Social Progress from 1760 to the Present Day." Welch, Charles. London, Blades, 1897. 4to, 504 pp. 42s. 40

"Hornsey, The Happy Suburb of." London 7:313 (May 19, 1898); Mun. J. 9:377 (May 18, 1900). 41

—. "Public Buildings in Hornsey." Surveyor Supp. May 18, 1900. (See also under Housing, Library.)

Hospitals. (See under Charities above.)

Housing of the Poor and of the Working Classes in London, General articles on. Brand, H. R. Fortn. 35:218 (1881); Cross, R. A. 19th Cent. 12:231 (1882); Greg, P. Macmil. 6:63 (1862); Harris, H. Percy. National R. 34:923 (Feb. 1900); Harrod, M. D. Dub. R. 94:414 (1884); Hill, Octavia. Macmil. 30:131 (1874); Hoole, E. Contemp. 45:224 (Feb. 1884); Lewis, Alice. Econ. R. 10:164 (April, 1900); Marshall, Alfred, and Mulhall, M. G. Contemp. 45:224 (Feb. 1884); Porrit, E. Pol. Sci. Q. 10:22 (1895); anon. Local Govt. Journal 27:365 (June 4, 1898); Sat. R. 88:637 (Nov. 18, 1899), Surveyor 17:270 (March 9, 1900); Mun. J. 9:946 (Nov. 30, 1900). 42

—. "Boundary Street Area. Municipal Housing." Williams, Fleming. Mun. J. 9:233 (March 23, 1900); anon. J. San. Inst. 21:451 (Oct. 1900); Mun. J. 9:193 (March 6, 1900). 43

—. "Boundary Street Area, Bethnal Green, Plans." L. C. C. Doc. 469, 1900. 7d. (See also L. C. C. Docs. 64 (1889, 2½d.), 349 (1897, 4d.), 406 (1899, 5d.), on Housing.) 44

—. "Boundary Street Estate, The Rebuilding of the." Fleming, Owen. In "Working Class Dwellings." London, P. S. King & Son, 1900. 4to, 2s. 6d. (See also County Council and Housing, Municipal Housing below.) 45

—. "Cottage Property in London." Hill, O. Fortn. 6:681 (1866). 46

—. "County Council's Housing Policy, The London." Jones, Charles S. Fortn. 68:967 (Dec. 1900); Rowe, Leo. S. The Citizen 2:268 (1896); anon. Spec. No. 3,676, p. 860 (Dec. 10, 1898); Mun. J. 9:981 (Dec. 14, 1900); 9:1002 (Dec. 21, 1900). 47

—. "County Council in Relation to Public Health and the Housing of the Working Classes, The Work of the London." Lowles, John. p. 172 "International Congress," vol. I, 1893. See 43-99. 48

—. "Existing Situation in London: Statistics of Problem." Phillimore, R. C. Fabian Tract No. 101, pp. 15-18. London, Fabian Society, 1900. 8vo, 50 pp. 1d. 49

—. Future Housing of the Working Classes of London. Blashill, Thomas. Surveyor 17:402 (April 13, 1900); J. San. Inst. 21:321 (July, 1900). 50

—. "Homes of the London Poor." Hill, Octavia. New York, State Charities Aid Association, papers republished from the Fortn. Rev. and Macmillan's Magazine, 1875. 78 pp. 25 cts. 51

London—*Continued.*

——. "Hornsey, Artisans' Estates at." Builder 44:880.
——. "House of Shelter, London's." Boulton, H. E. Fortn. 61:615 (1894). 52
——. "Housing Problem in London, The." Knowles, C. M. London, London Reform Union, 1899. 8vo, 21 pp. Pamphlet, 1d. 53
——. "How the Poor Live and Horrible London." Sims, Geo. R. London, Chatto, 1889. Pamphlet. 1s. 54
——. "Improving London." Mun. J. 9:437 (June 8, 1900). 55
——. "Land Struggle in London and the Contest in the London County Council on the Taxation of Land Values." Saunders, William. London, National Press Agency. 1s. 56
——. "Local Taxation of Rents in London." Hobhouse, Arthur. Contemp. 54:140 (1888). 57
——. "Law Affecting the Housing and Sanitary Condition of Londoners, Manual of the." Coutts, Baroness Burdett and others. London, Kegan, Paul, T. & Co., 1884. 107 pp. 1s. 58
——. "Limit of the Habitability of London." Conder F. R. Fraser 97:482 (1878). 59
——. "Lodging Houses of London, Common." Part III, p. 41, Knight's "Annotated Model Bye-laws of the Local Government Board." London, Knight & Co., 1890. 242 pp. 10s. 6d. 60
——. "Model Lodging Houses." Hollingshead, J. Good Words 2:170 (1861). 61
——. "Municipal Lodging House, The." London 6:630 (July 22, 1897). 62
——. Rowton Lodging Houses. Sommerville, W. A. 19th Cent. 46:445 (Sept. 1899); anon. London 6:817 (Oct. 14, 1897); Chamber's April, 1899; San. Rec. 24:128 (Aug. 11, 1899). 63
——. "Wanted: A Rowton House for Clerks." White, Robert. 19th Cent. No. 248:594 (Oct. 1897). 64
——. "Model Dwellings, Blocks of." Vol. III, Pt. I, "Life and Labour of the People," by Charles Booth. 65
——. "More Light and Air for Londoners: The Effect of the New Streets and Buildings Bill on the Health of the People." Williams, Robert. London, L. Reeve, 1894. 8vo, 54 pp. 1s. 66
——. Municipal Housing in London. Waterlow, David. Mun. J. & London 8:71 (Jan. 19, 1899); Mun. J. 8:1153 (Oct. 20, 1899), 9:153 (March 2, 1900). 67
——. "No Room to Live: the Plaint of Overcrowded London." (Reprinted from the Daily News.) Haw, George. London, Daily News office, 1899. 12mo, 162 pp. 68
——. "Overcrowding in London and its Remedy." Steadman, W. C. London, The Fabian Society, 1900. 8vo, 15 pp. Pamphlet, 1d. 69
——. "Overcrowding in Bermondsey, Shameful." London 7:299 (May 12, 1898). 70
——. "Overcrowding Problem in Greater London, The." San. Rec. 24:103 (Aug. 4, 1899).
——. "Peabody Buildings, The Later." Wallis, W. E. In "Working Class Dwellings." London, P. S. King & Son, 1900. 4to. 2s. 6d. 71
——. "Poor Law Scattered Homes for London." London 7:521 (Aug. 18, 1898). 72
——. "Rebuilding of London." Parker, J. Eng. Illust. Mag. 13:174 (1895); anon. Surveyor Supp. Nov. 30, 1900. 73
——. "Reconstruction of Central London." Westgarth, William (Editor.) London, Geo. Bell and Sons, 1886. 276 pp. 74
——. "Rehousing of the Poor in London." Cox, E. Westm. 134:611 (1890); Smith, Alfred. London 7:350 (June 2, 1898). 75
——. "Rehousing of the poorer classes in Central London." Corbett, J. Essay in Westgarth's "Reconstruction of Central London," p. 239. 76
——. Shoreditch. "Municipal Housing Scheme." London 6:821 (Oct. 14, 1897), 7:739 (Nov. 17, 1898); Mun. J. and London 8:827, 1241 (July 21, Nov. 17, 1899); San. Rec. 24:431 (Nov. 17, 1899). 77
——. Slums of London, The. L. A. B. Russkaya Muisi Dec. 1899. 78
——. "Back Streets and London Slums." Hastings, F. New York, Funk and Wagnalls, 1889. 20 cts. 79
——. "City Slums." Ingham, J. A. London, Swan, S. & Co., 1889. 2s. 122 pp. 80
——. "Improvement of the Slums in London." Labor Bulletin, Mass. No. 7. p. 1, (July, 1898). 81

London—*Continued.*

——. "Life in London Slums." Ecl. M. 116:511 (1891).

——. "London County Council and the Slum Problem." Rowe, Leo S. The Citizen 2:268 (1896). 82

——. "London Rookeries and Collier's Slums, a plea for breathing room." Williams, Robert. London, W. Reeves, 1893. 1s. 83

——. "Stamping out the London Slums." Marshall, Edward. Cent. 51:700 (1896). 84

——. "Suburban Municipal Cottages." London 6:1010 (Dec. 30, 1897). 85

——. "Tenants, Landlords, Agents, Houses, Rates and Taxes of London." Real Estate Rec. & Guide, Feb. 2, 1895. p. 164. 86

——. "Tenants in London, Landlords and." Hill, O. Macmil. 24:456 (1871). 87

——. "Tenements in London." Holyoake, M. O. Sanitarian 30:511 (1893). 88

——. "Tenements in London and New York, Improved." Am. Arch. 29:120 (1890).

——. "Tenement Houses in London." Collins, Patrick A. U. S. Consular Reports Vol. XLVIII, No. 178, pp. 421-454. 89

——. "Working Class Tenements in London." Porrit, E. No. Am. 160:120 (1895). 90

——. "Wanted—A new Housing Policy." London 7:720 (Nov. 10, 1898). 91

——. "West Ham, Municipal Cottages in." London 7:444 (July 14, 1898).

——. "West Ham's Slums: Corrupt Administration." London 6:804 (Oct. 7, 1897).

——. "What is being done in London and Dudley." (Housing.) R. of Rs. June 15, 1896. 92

——. "Wohnhäuser mit kleinen billigen Wohnungen in London." London, Meissner, Alois. Allgemeine Bauzeitung 59:97 (1894). 93

——. "Die Wohnungen der arbeitenden Klassen in London." Ruprecht, Wilh. Göttingen, Vandenhoech & Ruprechts Verl., 1884. 8vo. 2m. 80 pf. 94

"Ideal London." Harrison, Frederic. Eclectic M. 68:440 (Oct. 1898). 95

"Immensity of London, The." Gennings, John. Chaut. 28:219 (Dec. 1898). 96

Insanity. (See under Charities above.)

"Insurance in London, Municipal." London 7:834 (Dec. 29, 1898). 97

Islington. (See under Lighting below.)

"Italians in London." Gibbs, Phillip. Ludgate Sept. 1898; Hamer. Mun. J. 9:68 (Jan. 26, 1900). 98

Labor. "Direct Employment of Labor vs. the Contract System: The Works Department of the London County Council." Martin, J. W. Mun. Aff. 2:382 (Sept. 1898). 99

——. "A Question of Direct Labor in Shoreditch." London 6:846 (Oct. 21, 1897).

——. "Battersea Works Department." Mun. J. 9:317 (April 27, 1900).

——. "Waterside Labor in London." Booth, C. J. Statis. Soc. 55:521 (1892); Smith, H. L. Econ. J. 2:593 (1892). 100

——. Workmen's Trains. (See under Transit Facilities below.)

Lambeth. (See under Baths, Public Works.)

Lewisham. (See under Baths, Libraries.)

"Libraries, The London Boroughs and the Public." Library World Oct. 1899. 1

——. "Librarians in London. Library Movement in London." London 6:577, 599 (July 8, 15, 1897). 2

——. Libraries. East London. London 6:787 (Sept. 30, 1897); Hornsey. Mun. J. 8:1142 (Oct. 20, 1899); Surveyor Supp. June 29, 1900; Lewisham. London 6:601, 620, 658 (July 15, 22, Aug. 5, 1897). 3

——. "London Free Public Libraries." Mun. J. & London 8:1345 (Dec. 15, 1899).

——. "London Government Act and Libraries." Mason, T. Library 1:25 (Dec. 1899); anon. Library World April, 1899. 4

——. Public Baths and Washhouses and Public Libraries, 1897-98. Statistics, Finance and general information.) Gomme, G. L. London, P. S. King & Son, 1899. 4to, 73 pp. 2s. (L. C. C. Doc. 451.) 5

Lighting. "Battersea, The Light of." Mun. J. 9:639 (Aug. 17, 1900). 6

——. "City Lighting Muddle, The." Mun. J. & London 8:665 (June 2, 1899). 7

——. "Hackney, Electric Lighting in." Mun. J. & London 8:237 (Feb. 24, 1899). 8

London—*Continued.*
——. "Hackney, No Electric Lighting Monopoly in." London 7:259 (April 21, 1898).
——. "Hammersmith, Municipal Electricity in." London 7:297 (May 12, 1898).
——. "Electric Lighting in London." Mun. J. & London 8:1119 (Oct. 13, 1899).
——. "Electric Lighting. Light in the East." Mun. J. 9:621 (Aug. 10, 1900).
——. "Electric Lighting Companies, Our." London 7:369 (June 9, 1898).
——. "Electric Lighting Company's Works, The City of London." Elec. Rev. 34:163 (March 15, 1899).
——. "The Electricity Supply of London." Preece, Arthur H. Am. Gas Light J. 68:702 (May 2, 1898). 9
——. "Electric Light Stations, London." Gunton, Herbert C. Elec. World 31:297, 327, 351 (March 5, 12, 19, 1898). 10
——. "Electric Power and Light from City Refuse; The Shoreditch Enterprise." Sanitarian 39:313 (Oct. 1897). 11
——. "Electric Light Progress in London." Mun. J. & London 8:1202 (Nov. 3, 1899).
——. "Gas Supply of London." Chubb, H. J. Statis. Soc. 39:350 (1876); Liberty, W. J. J. Gas Light 75:756 (March 20, 1900); anon. Builder 74:223 (March 5, 1898); Am. Gas Light J. 68:658 (April 25, 1898); J. Gas Light 74:475 (Aug. 22, 1899); Eng. (Lond.) 90:2 (July 6, 1900). 12
——. "Accounts of the Metropolitan Gas Companies for the year 1899." J. Gas Light, 75:995 (April 17, 1900). 13
——. "City Corporation Conference on the Price of Gas in London." J. Gas Light 76:1154 (Nov. 6, 1900).
——. "Gas Works of London, The." Colburn, Zerah. New York, Van Nostrand, 1868. 12mo, 86 pp. 75 cts. 14
——. "The Lot of the Gas Worker—Coal and Coke—The London Gas Companies." Am. Gas Light J. 72:332 (Feb. 26, 1900). 15
——. "The London County Council and the Increased Price of Gas." J. Gas Light 76:230 (July 24, 1900), 76:1028 (Oct. 23, 1900). 16
——. "The 'Powers of Charge' of Metropolitan Gas Companies. A History of the Question of Price, in London from the Introduction of Gas Lighting to the Present Time." Rostron, Laurence W. S. London, Walter King, 1900. 17
——. "The Price of Gas in London." Eng. (Lond.) 90:65 (July 20, 1900).
——. "Islington's Municipal Electric Lighting." London 7:82 (Feb. 10, 1898).
——. "Light that Failed, The." Mun J. 9:73 (Jan. 26, 1900).
——. "Monopoly, The City Lighting." Hitching, Brooke. Mun. J. London 8:28 (Jan. 5, 1899). 18
——. "Fighting the Lighting Monopoly." London 7:825 (Dec. 29, 1898). 19
——. "Poplar, Electric Light for." Mun. J. 9:801 (Oct. 12, 1900).
——. "Public Lighting in Edinburgh, London and Elsewhere." J. Gas Light 73:297 (Feb. 7, 1899).
——. "Revolution in Public Lighting." Mun. J. & London 8:986 (Sept. 1, 1899).
Liquor Problem. "Drink and Drunkenness in London." No. Am. R. March, 1897. 20
"Literary London Twenty Years Ago." Higginson, Thomas Wentworth. Atlan. 80:753 (Dec. 1897). 21
Livery Companies. (See under City of London above.)
Lodging Houses. (See under Housing above.)
"Lord Mayor's Show, The." Pennell, Elizabeth Robins. Cent. 55:433 (Jan. 1898). 22
——. "Lord Mayor and the Mansion House, The." Warren, May Spencer. Cassell's p. 458 (April, 1898). 23
Margate. "London at Play." Pennell, Elizabeth R. Cent. 54:569 (Aug. 1897). 24
"Markets of London." Fletcher, J. J. Statis. Soc. 10:345 (1847); Mun. J. 9:566 (July 20, 1900). 25
——. "Clearance of Clare Market, The." Smith, Alfred. London 7:457 (July 21, 1898). 26
——. "Municipalisation of Spitalfields Market." Mun. J. & London 8:457 (April 14, 1899). 27
——. "Special Report relative to existing Markets and Market Rights, and as to the expediency of establishing New Markets in or near London." Plans. L.

London—*Continued.*

C. C. Doc. 63, 1893. 2s. 8½d. 28

"Marriage in East London." Dendy, H. Contemp. 65:427 (1894). Also see Ch. III, p. 28 Bosanquet's "Aspects of the Social Problem." London, Macmillan, 1895. 334 pp. $1. 29

"Music Halls, London County Council and." Archer W. Contemp. 67:317 (1895). 30

Newington. (See under Baths.)

"Noises, London's Many." Sanitarian 39:44 (July, 1897).

"Opera in London, Municipal." Mun. J. & London 8:614 (May 19, 1899). 31

Parks in London, General Articles on. Meath, Earl of. New R. 7:701 (1892); Thornbury, W. Belgra. 3:288, 410 (1867); 4:68, 288 (1868); Walters, Lucy. Chaut. 29:571 (Sept. 1899); anon. Blackw. 46:212 (1839), 51:390 (1842); Chamb. J. 68:337 (1891); Garden & F. 5:366, 616 (1892); Spec. 66:825 (1893); Building News 17:195. n. d. 32

——. "Bloomsbury, The Squares of." Builder 31:857. 33

——. "County Council and Open Spaces in London." Meath, Earl of. New R. 7:701 (1892). 34

——. "Finsbury Park, London, England, A Glimpse at." Meehan, Joseph. Park & Cem. 7:64, 160 (May, Sept. 1897). 35

——. "Hampstead-Heath, Public Park." Builder 2:417.

——. "Hyde Park Corner, The Proposed Improvements at." Builder 42:479.

——. "Municipal Parks, Gardens and Open Spaces of London, their History and Associations." Sexby, J. J. London, Elliot Stock, 1898. 8vo, 646 pp. Cl. $8.40. 36

——. "Note Book for 1899, giving particulars of Parks, Gardens and Open Spaces under the Control of the Council." 7d. L. C. C. Doc. 442. (See also L. C. C. Doc. 408 (1899, 5d.) on Open Spaces.) 37

——. "Peabody Square, Blackfriars-Road." Builder 30:26.

——. "Playgrounds, London." Holland, B. Macmil. 46:321 (1882); Oliver, E. Charing Cross M. May, 1900. 38

——. "Preservation of Commons in the neighborhood of the Metropolis." (London.) Hunter, Robert. Ch. V, p. 305 "Six Essays on Commons Preservation." London, Sampson, Low, Son & M., 1867. 432 pp. 39

——. "Report from the Select Committee on the Public Parks and Works Bill." Parliamentary Reports and Documents, 1887. 20 pp. 40

"Paving Trials of a New Wood in London." Surveyor 18:42 (July 13, 1900). 41

——. "Wood Pavements in London." Stayton, Geo. H. San. Eng. Aug. 20, 1887. Engng. News Nov. 22, 1884. Proceedings of the Institution of Civil Engineers Vol. 78. 42

"People's Palace, The." Besant, W. Contemp. 51:226 (1887), No. Am. 147:56 (1888), Unita. R. 34:338 (1890), Sat. R. 64:518 (1887); Bisland, Eliz. Cosmopol. 10:259 (1891); Curry, E. H. 19th Cent. 27:344 (1890); Gregory, R. A. Nature 50:144 (1894). 43

——. "A Municipal Pleasure Palace." Mun. J. 9:181 (March 9, 1900).

——. "People's Palaces and Polytechnics of London." Shaw, Albert. Cent. 40:163 (1890). 44

Police of London. Fletcher, J. J. Statis. Soc. 13:221 (1850); Meason, M. L. Macmil. 46:192 (1882); Shand, A. J. Blackw. 140:594 (1886); Warren, C. Munsey's Mag. 4:577 (1888). 45

——. "County Council and the Police of London." Evans, N. Contemp. 55:445 (1889). 46

——. "London Prisons." Argosy 55:156 (1893).

——. "Treatise on the police of the metropolis explaining the various crimes which at present are felt as a pressure upon the community and the means for their prevention." (By a magistrate.) London, 1st ed., 1796, 2d ed. enlarged and with chapter on the poor, 1801. 8vo. 47

Poor in London, Poor Law, etc. (See under Charities, Housing above.)

Poplar. (See under Lighting above.)

Population. (See under Census above.)

"Program, The London." Webb, S. London, Swan, S. & Co., 1894. 218 pp. $1. Article same subject, Whitmore, C. A. National May, 1893. 48

"Prostitution in London and other Large Cities." Acton, William. London, John

London—*Continued.*

Churchill & Sons, 1870. 302 pp. 12s. 49

——. "La Prostitution à Paris et à Londres, 1789-1877." Le Cour, C. J. Paris, Asselin et Cie., 3d edit., 1878. 416 pp. 5 fr. 50

"Public Improvements of London, How Carried Out." Statham, H. H. Fortn. 38:808 (1882). 51

——. "Public Works in London." Lefevre, G. S. 19th Cent. 12:667 (1882). 52

——. "Lambeth, Municipal Work at." Mun. J. 9:397 (May 25, 1900).

Rowton Lodging Houses. (See under Housing above.)

St. Marylebone. (See under Baths.)

St. Pancras. (See under Baths.)

Sanitation. "Annotated Model By-laws of the Local Government Board with respect to the Cleansing of Privies, Nuisances, Common Lodging Houses, New Streets and Buildings and Slaughter Houses." London, Knight & Co., 1890. 242 pp. 10s. 6d. 53

——. "By-laws as to the Drainage of Buildings, London." Builder 76:317 (April 1, 1899).

——. "Degeneration among Londoners." Cantlie, J. London, Field & T., 1885. 12mo. 1s. 54

——. "East End Sanitary Emporium, An." San. Rec. 20:8 (July 2, 1897).

——. "Etudes administratives et judiciaire sur Londres et l'Angleterre, précédé d'une étude comparative sur l'organisation sanitaire et la santé publique à Londres, Bruxelles et Paris." Bugnottet, G. et A. Noirpoudre de Sauvigney. Besancon, Pedone-Lauriel, 1889. 10 fr. 55

——. "Health of the City of London, The." Sanders, Sedgwick. San. Rec. 26:381 (Nov. 2, 1900). 56

——. "Health of London Menaced by the River Brent." London 6:677 (Aug. 12, 1897). 57

——. "Healthy London." London 7:22 (Jan. 13, 1898).

——. "Law Relating to the Public Health of London." Roberts, J. and Gollan. London, Butterworth, 1891. 14s. 58

——. "London, Ancient and Modern, from the sanitary and medical point of view." Poore, Geo. Vivian. London, Cassell & Co., 1889. 8vo, 128 pp. 5s. 59

——. "London, Health Report for 1898." San. Rec. 25:65 (Jan. 26, 1900). 60

——. "Sanitary Conveniences, New Piccadilly Circus." Builder 57:103.

——. "Sanitary Ramblings, being sketches and illustrations of Bethnal Green." (Housing Conditions in London of half a century ago.) Gavin, Hector. London, Churchill, 1848. 8vo. 4s. 6d. 61

——. "Sanitation and Reconstruction of Central London." Woodward, Wm. p. 29 Westgarth's "Reconstruction of Central London." 62

Schools. "City of London School." Allpress, R. H. Public School Magazine Oct. 1898. 63

——. "Design of the Public Schools of London." Engng. Rec. 40:178 (July 22, 1899).

——. "Educational Authorities in London." Ch. VII, p. 221 Frederick Whelen's "London Government." London, Grant Richards, 1898. 8vo, 291 pp. 3s. 6d. 64

——. "Election, The London School Board." Outlook 57:895 (Dec. 11, 1897); Educa. R. (London.) Jan. 1898. 65

——. "Feeding the Children." Mun. J. & London 8:1193 (Nov. 3, 1899).

——. "Free Evening Schools for London." London 7:569 (Sept. 8, 1898). 66

——. "Guildhall School of Music Extension." London 6:621 (July 22, 1897).

——. "Industrial Schools, L. C. C." Mun. J. 9:562 (July 20, 1900).

——. "London Progressives versus London Education." Diggle, J. R. National 24:307 (1894). 67

——. "London School Board." Diggle, Joseph R., and Headlam, Stewart D. Tomorrow Nov. 1897. 68

——. "London School Board and the Science and Art Department." School Board Gazette April, 1899.

——. "Northern Polytechnic, A New Educational Center for North London." London 6:597 (July 15, 1897).

——. "Northampton Polytechnic Institute." London 6:658 (Aug. 5, 1897).

London—*Continued.*

——. "Popular Education in London." London 7:576 (Sept. 8, 1898).

——. "Report by H. Llewellyn Smith, M. A., B. Sc., being an Inquiry into the needs of London with regard to Technical Education, the existing provision for such education, and the best means to be taken by the London County Council for improving that provision under the Technical Instruction Acts." Maps. L. C. C. Doc. 57, 1892. 5s. 4d. 69

——. "Studies in Board Schools." London 7:533 (Aug. 18, 1898). 70

——. "Technical Education in London." City Rec. 1:330 (May 26, 1898).

——. "Technical Schools, Shoreditch Municipal." London 7:203 (March 31, 1898).

——. "The Work of the London School Board." (Pt. I Historical, Pts. II and III The Foundations and Curriculum, with chapters on statistics, school buildings, school management, curriculum, teaching staff, books and apparatus, evening schools, compulsion, industrial schools, finance, day schools, training of teachers, special subjects of instruction, abnormal and defective children, evening schools.) Spalding, Thomas Alfred and others. London, Presented at the Paris Universal Exhibition, 1900. P. S. King & Son. 6 plans, 13 diagrams. 4to, 276 pp. Paper, 5s. 71

——. "Work of the School Board." Macnamara, T. J. Educa. R. June, 1896. 72

——. "Workers' School Board Program." London, Fabian Society, 1894. Fabian Tract No. 55. 19 pp. 1d.

Settlements. "Bethnal Green, Women's Settlements in." Mace, [Mrs.] Good Words 36:613 (1895). 73

——. "Bethnal Green. "The Work of a Ladies' Settlement." (St. Margaret's Women's Settlement.) Portal, Ethel M. p. 368 "Good Citizenship," edited by J. E. Hand. London, Geo. Allen, 1899. 474 pp. 74

——. "Central London, New Social Settlement for." London 6:803 (Oct. 7, 1897).

——. Educational "Settlements" of London. Davidof, L. Mir Bozhi Jan. 1900. 75

——. Mansfield House. Alden, Percy. Outlook 56:420 (June 12, 1897); Cullings, T. C. Leisure Hour 44:600, 796 (1895); King, Joseph. Andover R. Dec. 1892. 76

——. Oxford House. Anson, W. R. Econ. R. 3:10 (1893); Arnold, F. Leisure Hour 37:274 (1888); Booth, Charles. p. 122, Vol. I, "Life and Labor of the People." 77

——. "Passmore Edwards House." (Formerly University Hall, see below); Commons Vol. 2, No. 12, p. 3 (April, 1898). 78

——. "Passmore Edwards Settlement, Architecture of." Morris, G. Le. and Wood, Esther. Studio 16:11 (Feb. 1899). 79

——. "Robert Browning Hall." (Walworth.) Campbell, M. James. Commons (May, 1896); anon. London 6:589 (July 8, 1897). 80

——. "Toynbee Hall." (London.) Adams, H. B. Char. R. 1:12 Arnold, F. Leisure Hour 37:274 (April, 1888); Bailey, Cyril. Economist R. 6:88 (Jan. 1895); Barnett, S. A. 19th Cent. 38:1015 (Dec. 1895); Eclectic M. 126 183; Booth, Charles. p. 122, Vol. I, "Life and Labor of the People; Dana, M. McG. Gunton's M. 10:40 (May, 1896); Nunn, T. H. Econ. R. Oct. 1892; Potter, Henry C. Critic Sept. 17, 1887. 81

——. "Toynbee Hall." Smart, William. Glasgow, Jas. Maclehose & Sons, 6d. 82

——. "Un Settlement Anglais: Notes sur Toynbee Hall." Circulaire No. 12, Musée Social, 5 Rue des Cases, Paris. Aug. 3, 1897. 83

——. "Work for University Men in East London." Pabb & Tyler, Cambridge, Eng. 6d. 84

——. "University Hall, Opening Address at." Ward, [Mrs.] Humphrey. London, Macmillan, 1891. 45 pp. 30 cts. 85

——. "The Future of University Hall." Ward, [Mrs.] Humphrey. London, Smith, Elder & Co., 1891. 86

——. "Whitechapel, The Universities' Settlement in." Nunn, T. H. Econ. R. 2:478 (1892). 87

Sewerage and Sewage Disposal of London, General articles on. Fletcher, J. J. Statis. Soc. 7:143 (1844); Galton, Douglas. Van. Nos. Eng. M. April, 1885, San. Eng. March 26, 1885; Rawlinson, R. J. Soc. Arts 38:66, 142 (1890); Scott, H. Y. D. J. Soc. Arts 28:19 (1880); Worth, John Edward, and Crimp, William Santo. Engng. Rec. 40:17 (June 3, 1899). Also in U. S. Spl. Consular Reports, p. 129 (1897); anon. Engng. Rec. 38:275 (Aug. 27, 1898); Eng. (Lond.) 88:464 (Nov. 10, 1899); Mun. J. 8:1227 (Nov. 10, 1899). 88

London—*Continued.*

——. "Bacterial Treatment of London Sewage." Clowes, Frank. Surveyor 17:320 (March 23, 1900), City Govt. 8:102 (April, 1900), J. San. Inst. 21:308 (July, 1900), J. Soc. Arts 49:45 (Dec. 14, 1900), San. Rec. 26:542 (Dec. 21, 1900). 89

——. "Bacterial Treatment of Crude Sewage at Crossness." Eng. (London) 88:389 (Oct. 20, 1899); Engng. Rec. 40:507 (Oct. 28, 1899).

——. "Bacterial Purification of Sewage, The London County Council and." San. Rec. 22:365 (Oct. 7, 1898).

——. "Commission of Sewers, The City." The Local Government Journal 27:25 (Jan. 8, 1898); London 7:12 (Jan. 6, 1898).

——. "Filtration of Crude Sewage. Reports by the Chemist, F. Clowes, on the Bacteriological Examination of London Crude Sewage as it is delivered at the Barking and Crossness Outfall Works." Plates. 7d. and 2s. 4d. L. C. C. Docs. 388 and 436 (1897, 1900). 90

——. "Filtration of Crude Sewage through Coke at London, England, Experiments on the." Engng. News 42:299 (Nov. 9, 1899).

——. "Report of the Royal Commission on Metropolitan Sewage Discharge." Parliamentary Reports and Documents, 1884. 250 pp. 91

——. "Report of Sir B. Baker and the Chief Engineer on the Main Drainage of London." Maps. L. C. C., 3, 1891. 1s. 7d. 92

——. "Sludge Deposits on the Experimental Coke Beds, London, England, Report on Sewage." Engng. N. 43:157 (March 8, 1900). 93

Shoreditch. (See under Housing, Garbage, Labor, Lighting, Schools above.)

Slaughter Houses. (See Abattoirs above.)

Slums. (See under Housing above.)

"Social awakening in London." Woods, R. A. Scrib. M. 11:401 (1892). 94

"South London of To-day." Besant, Walter. Pall Mall 16:403 (Nov. 1898). 95

Statistics. "London Statistics." Vol. VI, 1895-96. Statistics printed by the London County Council during 1895-96, with Analysis of Statistics relating to London, printed in the Annual Reports of Vestries and Boards, for the year 1894-95, and in Parliamentary Papers of the year 1895. Diagrams and Maps. 5s. 9d. L. C. C. Doc. 325. Same for 1896-7 (L. C. C. Doc. 378) and 1897-8 (L. C. C. Doc. 432). 5s. 9d. each. 96

——. "Statistical Abstract for London, 1897." L. C. C. Vol. I. 12mo, 76 pp. 1s. 97

——. "Statistical Abstract for London." Vol. II, 1898, L. C. C. Doc. 427. 1s. 1½d. (Issued annually.)

"Streets, London." Blair, W. Nisbet. Mun. J. 9:256 (March 30, 1900). 98

——. "Characteristics of Some Great London Thoroughfares." Architect (London.) Jan. 1, 1897.

Street Cleaning. "Cleansing of London." Gordon, W. J. Leisure Hour 38:601 (1889). 99

Street Improvements. "A Comprehensive Scheme for Street Improvements in London." Cawston, Arthur. London, Stanford, 1893. 136 pp. ill. pls. maps. 4to. 21s. 100

——. "The Condition of London Streets." Surveyor 17:207 (Feb. 23, 1900).

——. "Le Développement de Londres." Pasquet, D. Annales de Géographie 8:22 (Jan. 15, 1899). 1

——. "Financial Loss Caused by Narrow Streets." Engng. Rec. 40:617 (Dec. 2, 1899).

——. "Great London Improvement, The." Mun. J. & London 8:1355 (Dec. 22, 1899).

——. "History of London Street Improvements 1855-1897." Edwards, Percy J. 8vo, 307 pp, index. Cl. 2 large Maps, 35 Plans. 18s. 1d. L. C. C. Doc. 380. 2

——. "Insanitary Conditions of London Streets." Blair, W. Nisbet. J. San. Inst. 21:289 (July, 1900). 3

——. "London Street Improvements." Lefevre, G. Shaw. Contemp. 75:203 (Feb. 1899). 4

——. "Shaping the New London." Mun. J. & London 8:1127 (Oct. 13, 1899).

——. "Special Report from the Select Committee on the Streets of London." Parliamentary Reports and Documents, 1890. 13 pp. 5

——. "The Street Makers of London." Wade, G. A. Ludgate Feb. 1900. 6

——. "Street Realignment and Reconstruction in Central London." Bridgman,

London—*Continued.*

Henry H. Essay p. 151, Westgarth's "Reconstruction of Central London." 7

——. "Street Regulations, London." Surveyor 18:541 (Nov. 9, 1900).

——. "Traffic, London Street." Barry, John Wolfe. Engng. 68:636 (Nov. 17, 1899). 8

——. "Two Big Street Improvements." London 6:675 (Aug. 12, 1897). 9

——. "Westminster Improvement Scheme." Warren, E. P. Fortn. No. 375, p. 479 (March, 1898). 10

——. "Widening the Strand." Mun. J. & London 8:1291 (Dec. 1, 1899).

Street Railways. (See under Transit Facilities below.)

"Sweating." Booth, Charles. Chapter X, Vol. IV, p. 328, "Life and Labor of the People." 11

Taxation. (See under Finance above.)

Technical Education. (See under Schools.)

"Telephones, London and." London 7:385 (June 16, 1898).

——. "Municipal Telephones." Mun. Rec. & Ad. 2:617 (June 15, 1898), 2:672 (July 15, 1898); London 7:529 (Aug. 18, 1898). 12

Tenement Houses, London. (See under Housing above.)

Thames, The. "The Conservation of the Thames." Eng. (Lond.) 89:556 (June 1, 1900).

——. "Deepening the Thames." Arch. (Lond.) Nov. 6, 1896.

——. "Report by the Chief Engineer on the flow of the Thames, with tables, etc." 1892. 3s. 8d. L. C. C. Doc. 58. 13

——. "The Thames Tunnel." English Illustrated M. Jan. 1897.

——. "The Thames from Wapping to Blackwall." Besant, Sir Walter. Cent. 60:746 (Sept. 1900). 14

"Theatre in London, The." Walkley, Arthur B. Cosmopolis 11:66 (July, 1898). 15

Transit Facilities. "Blackwall Tunnel, London, The." Sci. Am. 82:217 (April 7, 1900). 16

——. "Cable Traction in London." (Editorial.) Ry. World 7:258 (Aug. 4, 1898). (See also under Electric Traction below.) 17

——. Central London Railway. (See under Underground Railways below.)

——. "Congestion of London Street Traffic." Barry, Sir J. Wolfe. Ty. & Ry. World 8:487 (Dec. 7, 1899). 18

——. County Council Tramways, London. Ry. World 7:186, 414 (June 2, Dec. 8, 1898); Mun. J. 8:3, 881 (Jan. 5, Aug. 4, 1899); Ty. & Ry. W. 8:456 (Nov. 2, 1899), 9:566 (Nov. 8, 1900). 19

——. "County Council, The Tramway Policy of the London." Ady, Clarence E. Ty. & Ry. World 8:493 (Dec. 7, 1899); Monkswill, Lord. New R. 5:491 (1891); anon. Ty. & Ry. World 9:200, 253 (May 10, June 7, 1900). 20

——. "County Council and Tramway Traction." Baker, Allen. London 7:665 (Oct. 20, 1898). 21

——. "County Council, Mechanical Traction on Tramways of the London." Kennedy, Alexander B. W. Ty. & Ry. World 8:361 (Sept. 7, 1899). 22

——. "County Council, London Tramway Company v. The London." Ry. World 7:147 (May 5, 1898). 23

——. "Electric and Cable Railways, Report from the Joint Select Committee of the House of Lords and House of Commons on." Parliamentary Reports and Documents, 1892. 158 pp. 24

——. "Electric Tramway Service, London." Mun. J. 9:229 (March 23, 1900).

——. "Electric Tramway Schemes for London, New." Elec. R. (Lond.) 47:168 (Aug. 3, 1900). 25

——. "Electric Tramways for London, Overhead." Robinson, J. Clifton. Ty. & Ry. World 9:278 (July 5, 1900). 26

——. "Future of London Railways, The." Millin, G. F. Contemp. R. 78:103 (July, 1900); anon. Mun. J. 8:833 (July 21, 1899). 27

——. Legislation. "Tramway Legislation in London; and Tramways belonging to Local Authorities." Hopkins, A. Bassett, Chairman of the Highways Committee, 1891. 89 pp. 1s. 7½d. L. C. C. Doc. 45. 28

——. "Light Railways, London." Mun. J. & London 8:1116 (Oct. 13, 1899).

London—*Continued.*

——. "Locomotion in London." Barry, John Wolfe. London 7:750 (Nov. 24, 1898). 29

——. "Locomotion in 1837, London." Paley, W. B. Gentleman's M. 283:247 (Sept. 1897). 30

——. "London Tramways Company, The." Ry. World 8:34 (Jan. 5, 1899).

——. "Omnibuses, London." Robertson, W. B. Cassell's No. 458, p. 576 (Nov. 1900). 31

——. "Omnibus Service, Legality of Municipal." Ty. & Ry. World 9:154 (April 5, 1900). 32

——. "Public Property, Street Railways of London as." Sat. R. 72:467, 497 (1891). 33

——. "Purchase of the London Tramways." Ry. World 7:260 (Aug. 4, 1898). 34

——. "Rapid Transit in London." Quarterly Review 175:476 (1892).

——. "Rapid Transit in London." p. 7 "Rapid Transit in Foreign Cities," Parsons, W. B. New York, 1894. 35

——. "Rapid Transit in London, and Otherwise." Tilden, James A. J. Assoc. Engng. Soc. March, 1891, p. 124. 36

——. "Return of services and routes by Tramways, Omnibuses, Steamboats, Railways and Canals, in the County of London and in extra-London, together with an examination in detail of the present system of locomotive service and of the requirements to meet the needs of London." Gomme, G. L. London, Documents of the London County Council, No. 250, 1895. 199 pp. maps, diagrams. 5s. 2d. 37

——. "Steamship Service in London: Tramways." Halstead, Harshal. Cons. Rep. 64:336 (Nov. 1900). 38

——. "Traffic Problems, London." London 7:206 (March 31, 1898).

——. Tramways, General Articles on. London 6:996 (Dec. 23, 1897); Engng. (London) 66:198 (Aug. 12, 1898); Ann. Am. Acad. Pol. Sci. 13:277 (March, 1899); Mun. J. 9:226 (March 23, 1900); Ty. & Ry. World 9:141, 408, 614 (April 5, Dec. 6, 1900). 39

——. "Transit in London, Means of." Ty. & Ry. World 8:455 (Nov. 2, 1899). 40

——. Transportation. "Circulation et Locomotion a Londres." Artibal, J. R. Municipale 3:1787 (Dec. 23, 1899). 41

——. Underground Railways in London, General articles on. Bellet, D. Rev. Sci. Dec. 10, 1898; Cooper, Frederick E. Engng. M. 15:928 (Sept. 1898); Halstead, Marshal. Cons. Rept. 64:211 (Oct. 1900); Mitton, G. E. and Klickman, Wilfred. Windsor Mag. Nov. 1897; Pennell, Elizabeth Robbins. Harper 92:278 (1896); Wintle, W. J. Harmsworth Mag. 3:113 (Sept. 1899); anon. Railroad Gaz. 30:77, 134, 476, 342 (Feb. 4-May 25, 1900); Le Génie Civil June 25, 1898; Strand M. 16:138 (Aug. 1898); Ty. & Ry. W. 9:589 (Dec. 6, 1900); Mun. J. 9:959 (Dec. 7, 1900); Ty. & Ry. World 9:80 (Feb. 8, 1900), 9:227 (June 7, 1900). 42

——. Berlin, Underground Railways in London and." Silberstein, L. Die Zeit March 26, 1898. 43

——. Central London Railway, The. Grinling, C. H. Railroad Gaz. Nov. 20, 1896; Hall, Henry W. Elec. Rev. 33:264 (Oct. 26, 1898); Knowles, A. J. Cassell's 30:131 (July, 1900); Scott, W. J. Ry. M. Oct. 1900; Twelvetrees, W. N. Feilden's M. Oct. Dec. 1900; anon. St. Ry. J. 13:423 (July, 1897), 14:141 (March, 1898), 16:667 (July 14, 1900); St. Ry. Rev. 7:478 (July 15, 1897); Elec. World 30:12 (July 3, 1897); Engng. News 38:15 (July 1, 1897), 39:367 (June 9, 1898), 44:74 (Aug. 2, 1900); Elec. Rev. 31:2 (July 7, 1897); Elec. Eng. 23:733 (June 30, 1897); Ry. World 7:67 (March, 1898); Mun. Rec. & Ad. 3:874 (Nov. 15, 1898); Mun. J. 9:101 (Feb. 9, 1900); Feilden's M. March, 1900; Engng. 69:857 (June 29, 1900); Builder 78:634 (June 30, 1900); Elec. W. & E. 36:85, 121, 164 (July 21, Aug. 4, 1900); Engng. Rec. 42:109 (Aug. 4, 1900); Railroad Gaz. 32:481 (July 13, 1900); Sci. Am. 83:40 (July 21, 1900); Ty. & Ry. W. 9:531 (Nov. 8, 1900). 44

——. City and South London Railway. Holmes, G. J. J. of Finance Dec. 1897; anon. Elec. R. (Lond.) Sept. 7, 1900. 45

——. "Comparison of the different systems of underground railways in London." Van Nos. Eng. M. 1:337 (1869). 46

——. "Construction, Methods of: Underground Electric Railway, London." Sci. Am. 83:89 (Aug. 11, 1900). 47

——. "Die Londoner Untergrundbahnen." Troske, L. Berlin, Springer, 1892. 10m. 48

London—*Continued.*

—. "Greathead Electric Underground Railway." Sterne, Simon. Forum 11:683 (1891). 49

—. "London and Southwark Subway." Greathead, J. H. Engng. News Nov. 5, 1887. 50

—. "Metropolitan Underground Railway, London." Baker, B. B. and J. W. Barry. Proceedings of the Institution of Civil Engineers, vol. 81, 1885. 74 pp. 51

—. "Ventilation for London Underground Railways, Mechanical Tunnel." Engng. News 39:237 (April 14, 1898). 52

—. "United Tramways Co., London." Ry. World 8:213 (June 8, 1899); St. Ry. R. 9:596 (Sept. 15, 1899); St. Ry. J. 15:584 (Sept. 1899). 53

—. "Underground Conduit System for London United Tramways." Ty. & Ry. World 8:379 (Oct. 5, 1899). 54

—. "Waterloo and City Railway." Ty. & Ry. World 8:485 (Dec. 7, 1899). 55

—. "Waterloo and City Railway, New Rolling Stock for the." Ty. & Ry. World 9:129 (April 5, 1900).

—. "West Ham, Tramways at." Mun. J. & London 8:1081 (Sept. 29, 1899).

—. Workmen's Trains. "Reports giving results of inquiries instituted by the Council with reference to the service of the Workmen's Trains provided by the thirteen Railway Companies having termini in the Metropolis." 1893. 6½d. L. C. C. Doc. 89. (See also L. C. C. Docs. 365 (1897, 6d.) and 366 (1897, 6d.), same subject.) 56

"Unemployed in London." Toynbee, H. V. Macmil. 69:54 (1893). 57

Unification of London. (See Amalgamation under General References above.)

Vestries. (See under General References above.)

Walworth. (See under Settlements above.)

Water Companies, Articles on, London. Costelloe, B. F. C. Contemp. 67:801 (1895); Dobbs, Archibald F. Contemp. 61:26 (1892); Lubbock, John. 19th Cent. 37:657 (1895); anon. Sat. Rev. 86:262 (Aug. 27, 1898); Mun. J. 7:565, 608, 704; 8:1190, 9:71 (Sept. 1, 1898, Jan. 26, 1900); Engng. Rec. 41:121 (Feb. 10, 1900). 58

—. "The Position of the London Water Companies considered from a Parliamentary and Legal Point of View. Report to the London County Council." Cripps, H. L. Maps, 8vo, 151 pp. L. C. C. Doc. 51, 1892. 5s. 3d. 59

—. Accounts. "London Water Supply, An Analysis of the accounts of the metropolitan water companies." Lass, Alfred. London, Walter King, Published annually, sixteenth year, 1895-96. 4to, 34 pp. 15s. 60

—. "East London Water Question." San. Rec. 22:309 (Sept. 23, 1898); Eng. (London) 86:207 (Aug. 26, 1898). 61

—. "East London Water Works Company." Nash, Vaughan. Cont. 74:474 (Oct. 1898). 62

—. "Hydrography of the Wealden: A Possible Solution of the London Water Question." Willoughby, Edward F. San. Rec. 23:203 (March 10, 1899), 23:228 (March 17, 1899). 63

—. Reservoir. "The Largest Reservoir in England." Mun. J. 9:240 (March 30, 1900). 64

—. "Sea Water to London, Supply of." Grierson, Frank W. Architect Jan. 31, 1896. 65

—. "Staines Reservoir Works." London 7:653 (Oct. 13, 1898). 66

—. "Thames, The Purification of the." Dibdin, Wm. Joseph. Jour. W. Soc. of Engs. Oct. 1897; anon. Engng. Rec. 40:53 (June 17, 1899). 67

—. "Typhoid, The London Water Supply and." Corfield, W. H. San. Rec. 24:503 (Dec. 8, 1899). 68

—. "Underground Source of Water Supply, London's." Fire & W. 26:27 (Jan. 28, 1899).

—. Water Supply of London, General articles on. Chabanne, J. B. R. Municipale 3:1612 (Oct. 7, 1899); Conder, F. R. Fraser 102:185 (1880); Dibdin, W. J. San. Rec. 20:192 (Aug. 20, 1897); Dickinson, W. H. Contemp. Feb. 1897, Engineering Feb. 19, 1897; Fletcher, J. J. Statis. Soc. 8:148 (1845); Frankland, Percy. J. Soc. of Arts (London) May 21, 1897, Jour. of Gas Lgt. (London) June 22, 1897; Hunter, Walter. J. Soc. Arts 47:475 (April 21, 1899); Lefevre, G. Shaw. 19th Cent. 44:980 (Dec. 1898); Lubbock, John. 19th Cent. 31:224 (1892); Maltbie, Milo Roy. Mun. Aff. 3:193 (June, 1899), Humanitarian 15:238 (Oct. 1899); Middleton, R. E. Public Health March, 1899, J. San. Inst. 20:201

London—*Continued.*

(July, 1899); Munro, John. Cassell's Family M. Jan. 1897; Shadwell, Arthur. 19th Cent. 45:282 (Feb. 1899); Souden, Fred T. Windsor Magazine June, 1898; anon. Sat. R. 73:356 (1892); Jour. Gas Lighting (London) Feb. 16, 1897; San. Rec. 19:504 (May 28, 1897); London 7:365 (June 9, 1898); J. Gas Light. Sept. 6, 1898; London 7:689 (Oct. 27, 1898); Spec. No. 3,671 p. 643 (Nov. 5, 1898); Eng. Jan. 6, 1899; London 7:836 (Dec. 29, 1898); Engng. 67:115 (Jan. 27, 1899); Mun. J. & London 8:1220 (Nov. 10, 1899); Builder 77:429 (Nov. 11, 1899); Eng. (London) 89:96 (Jan. 26, 1900); Spectator 84:131 (Jan. 27, 1900). 69

——. Water Supply, Reports on. L. C. C. Docs. 75 (6d.), 145 (1s. 7d.), 230 (4½d.), 254 (6d.), 256 (4s. 2d.), 263 (4½d.), 280 (2½d.), 306 (3s. 9d.), 317 (6d.), 338 (6d.), (1893-1899). 70

——. "Future Sources of London Water Supply." Conder, F. R. Fraser 94:45 (1876); Middleton, R. E. J. Gas Light. 76:1581 (Dec. 25, 1900); anon. Eng. 88:183 (Aug. 25, 1899). 71

——. "History and description of the London Waterworks." Bolton, F. London, Clowes, 1888. 14s. 72

——. "London Water Supply." Shadwell, A. London, Longmans, Green & Co., 1899. 8vo, 282 pp. Cl. 5s. 73

——. "London Water Supply: A Retrospect and a Survey." Sisley, R. 4to, 204 pl. Cl. 21s. 74

——. "London Water Supply, being a Compendium of the History, Law and Transactions relating to the Metropolitan Water Companies from the Earliest Times to the Present Day." (2d Edition.) Richards, H. C., Payne, W. H. C., and Soper, J. P. H. London, P. S. King & Son, 1899. 8vo, 310 pp. Cl. 6s. 75

——. "London Water Supply Commission." Anon. The Local Government Journal 27:192 (March 19, 1898); Builder 78:99 (Feb. 3, 1900). 76

——. "Report of the Royal Commission on the Metropolitan Water Supply." Parliamentary Reports and Documents, 1893. 555 pp. Minutes of Evidence taken before the Commission. 692 pp., maps and plans. 77

——. "Water Board for London, A." Mun. J. & London 9:69 (Jan. 26, 1900). 78

——. "Vesting the London Water Supply in a Public Trust." Engng. March, 20, 1896. 79

——. "Water Works of London." J. für Gas. u. Wasserversorgung April 20, 1895. 80

——. "Water Works of Europe: London and Liverpool." Philadelphia, Commercial Museum, 1899. 8vo, 50 pp. Pamphlet. 81

——. See also under Thames above.

"West Ham (Eng.), Its Growth and Government." London 6:573 (July 8, 1897). 82

——. "Socialism in West Ham." Billows, F. H. Econ. R. 10:52 (Jan. 1900); Legge, Hugh. Econ. R. 9:489 (Oct 16, 1899). 83

——. West Ham. (See also under Housing, Transit Facilities.)

West London. "Life in West London." Sherwell, Arthur. London, Mathuen, 2d ed., 1897. 12mo, 202 pp. Cl. 2s. 6d. 84

"Whitechapel, An Evening in." Chapin, Henry Dwight. Ind. 51:2018 (July 27, 1899). (See also under Charities, Settlements, above). 85

"Women's Club Movement in London, A." Amos, Sheldon. Am. Mo. R. of Rs. 16:440 (Oct. 1897). 86

"Women as Councillors." Fabian Tract No. 93. London, Fabian Society, 1900. 8vo, 4 pp. Pamphlet. 87

London, Ont.

"Sewerage of London, Ont." Ashbridge, W. T. Engng. Rec. 39:475 (April 22, 1899). 88

——. "The Construction of the Main Intercepting Sewers of the City of London, Ont." Tr. Can. Soc. Civ. Eng. 13:12 (1899). 89

"**Lorain, Ohio,** Bacterial Test of Mechanical Filters at." Engng. News 38:278, 281 (Oct. 28, 1897). 90

Los Angeles, Cal.

"Fire Alarm and Police Telegraph System, Los Angeles." Elec. W. & E. 35:251 (Feb. 17, 1900). 91

"Settlement in Adobe, A." Commons, May, 1897.

Los Angeles, Cal.—*Continued.*

"Sewer and Sewage Irrigation, Operation of the Los Angeles Outfall." Bassell, Burr. J. Assoc. Engng. Soc. 19:45 (Aug. 1897). 92

——. "Converting Portions of the Los Angeles Outfall Sewer into a Septic Tank." Engng. News 44:317 (Nov. 8, 1900). 93

Transit Facilities. "The System and Methods of the Los Angeles Railway Company." St. Ry. Jour. 14:303 (June, 1898). 95

"Water Supply Question, Los Angeles." Mun. Engng. 13:150 (Sept. 1897).

——. "Allowances for Depreciation in the Pipe System of the Los Angeles Water Works." Engng. News 41:283 (May 4, 1899).

——. "Public Purchase of the Los Angeles Water System." P. Ownership R. 2:50 (Aug.-Sept. 1898).

——. "The Los Angeles Water Works Case." Engng. Rec. 41:538 (June 9, 1900).

——. "The Water Controversy at Los Angeles." Cal. Mun. 1:99 (Nov. 1899).

"**Loughborough [Eng.]**, Corporation Water Works." Surveyor 17:292 (March 16, 1900). 96

Louisville, Ky.

"Charter in Kentucky, Louisville, The History of a Municipal." McDermott, Edw. J. Ann. Am. Acad. Pol. Sci. 7:63 (1896). 97

"History of Louisville, Ky." Rule, Lucien V. See 1-4c. 98

History, Description and Statistics of Louisville, Ky., in 1880. Census. See 1-7. 99

Lighting. "The Gas Fight in Louisville, Ky." Louisville, Kentucky, Heating Co., 1900. 8vo, 47 pp. Pamphlet. 100

"Municipal Condition of Louisville." Hartwell, Frank N. P. 391, Proc. Second Natl. Conf. for Good City Govt., 1895. See 6-18b. 1

"Park System, Louisville." Park and Cemetery 7:32 (April, 1897).

"Paving in Louisville, Ky., Cost of Asphalt Street." Engng. News 40:381 (Dec. 15, 1898). 2

Water Purification. "Lessons from the Louisville Experiments on Water Purification." (Editorial). Engng. News 11:296 (Nov. 10, 1898). 3

——. "Report on the Investigations into the Purification of the Ohio River Water at Louisville, Kentucky, made to the President and Directors of the Louisville Water Company." Fuller, George W. New York, D. Van Nostrand Co., 1898. 4to, 480. pp., ill., plates. Cloth, $10. 4

"**Low, Seth**, A Character Sketch." Cary, Edward. R. of Rs. 16:33 (July, 1897). 5

Lowell, Mass., History, Description and Statistics of, in 1880. Census. See 1-7. 6

Lübeck, Germany.

History. "Verfassungsgeschichte des Lübeckischen Freistaates, 1848-1898." Bruns, F. Lubeck, Lubcke & Hartmann, 1899. 8vo, 185 pp. Cl. 4m. 7

Lynn, Mass., History, Description and Statistics of, in 1880. Census. See 1-7. 8

Lyons, France.

Garbage Disposal. See 56-40b.

History. "L'Histoire d'une grande Ville en France." Beaune, Henri. Ref. Soc. 8:420 (Sept. 16, 1899). 9

Housing. "Les Petits Logements dans les grandes villes (et particulièrement dans la ville de Lyons.) Mangini, F. Lyons and Paris, 1891. 10

"Public Works in Lyons." Browne, Thos. N. U. S. Consular Reports 55:529 (Dec. 1897). 11

"Sewage Disposal." Hyde, Frank E. Cons. Rep. 47:220 (1895). See also 56-40b. 11a

Transit. "Electric Traction at Lyons, France." Elec. World 32:722 (Dec. 31, 1898). 12

Machine Politics. (See **Bossism, Elections, Party Politics**).

Madison, N. J.

"Electric Light and Water Plant of Madison, N. J., The Municipal." Am. Elec. June, 1899. 13

Madison, Wis.

"Sewage Disposal at Madison, Wis." Engng. Rec. 42:468 (Nov. 17, 1900). 14

——. "Chemical Precipitation and Rapid Filtration of Sewage at Madison, Wis." Engng. News 42:411 (Dec. 28, 1899). 15

——. "The Unsuccessful Sewage Purification Plant at Madison, Wis." Turneaure, F. E. Engng. News 44:253 (Oct. 11, 1900). 16

"Water Supply of the City of Madison, Wis., Artesian." Heim, John B. Pp. 41-54 "Proceedings of the Twentieth Annual Meeting of the American Water Works Association, Richmond, Va., May 15-18, 1900." 8vo, 216 pp. Cloth, $1. 17

——. "Artesian Water Supply of the City of Madison, Wis." Heim, John B. Fire & W. 28:10 (July 14, 1900), 28:18 (July 21, 1900). 18

——. "Use of Water in Madison, Wis." Engng. Rec. 37:490 (May 7, 1898). 19

Madras, India.

"Local Boards in the Madras Presidency." Vencataratnam, Ganjam. Madras Review, May, 1898. 20

"Tramways, The Madras Electric." Ty. & Ry. World 9:132 (April 5, 1900).

Madrid, Spain.

Administration. "Memoria sobre la administracion municipal de Paris y breves observaciones acerca de la de Madrid." Dicenta y Blanco, D. Jose. Madrid, 1879. 1 vol. 21

Improvement of Madrid. "Agrandissement de la Ville de Madrid." Nouv. Annales de la Const. p. 2, 1864. 22

——. "Grund-Idee des neuen Bebauungsplan für Madrid." Römer. Zeitschr. f. Bauw. p. 609, 1864. 23

Police Ordinances. "Ordenanzas de policia urbana y rural para la villa de Madrid y su término y constitucion de su Ayuntamiento del ano 1891." Barrero, E. M. Madrid, J. C. Garcia, 1891. 160 pp. 3 pes. 24

Sewerage. "Tercera memoria que contiene los trabajos hechos acerca del aprovechamiento de las aguas que discurren por las alcantarillas de Madrid." Justo y Villanueva, L. Madrid, 1877. 25

Thieves and Beggars of Madrid. "Robo o Ladrones de Madrid, Morfologia del." Lugilde y Huerta, M. 8vo. 2 pes. 26

Transit Facilities. "Electric Railways in Madrid and Barcelona." Armstrong, F. C. St. Ry. J. 15:75 (Feb. 1899). 27

——. "Madrid Electric Tramways." Ry. World 8:43 (Feb. 9, 1899).

Magdeburg, Germany.

Charity. "Armenstatistik in Magdeburg." Silbergeist, H. Magdeburg, Carl Friese, 1895. 28

"Commercial High School for Magdeburg." Moore, Thomas Ewing. Consular Reports 56:171 (Feb. 1898). 29

Water Supply. "Die Wasserversorgungsfrage der Stadt Magdeburg." Gesund. Ing. 20:193 (June 30, 1897). 30

"**Maine,** Town Government in." McDonald, W. Nation 60:197 (1895). 31

Mainz, Germany.

Building Laws. "Das Baurecht der Stadt Mainz." Wagner & Schafer. Mainz, H. Quasthoff, 1899. 8vo, 338 pp. 4 marks. 32

Improvement Schemes. "Stadterweiterung von Mainz." Deutsche Bauz. p. 484, 1879. 33

——. "Bemerkungen zu dem Gutachten des kgl. Baurath Hobrecht in Berlin über die Stadterweiterung von Mainz." Lippold, H. Mainz, 1873. 34

——. "Stadterweiterung von Mainz, Gutachten." Hobrecht. Mainz, Diemer, 1873. 8vo, 19 pp. 30 pf. 35

Manchester, Eng.

Government, General References and Unclassified.

"Manchester and Hamburg." (A Comparison). The Local Government Journal 27:46 (Jan. 15, 1898). 36

"Manchester, A Short History." Saintsbury, George. New York, Longmans, Green & Co., 1887. 204 pp. $1.25. 37

"Manchester's Municipal Activities." Chap. V, p. 145, "Municipal Government in Great Britain," by Albert Shaw. 38

"Municipal Government of Birmingham, Manchester and Liverpool." Sharpless, Isaac. Haverford College Studies No. 11. 39

"Manchester Municipality at Work." Dolman, F. New R. 11:499 (1894). (See also Chap. II in his "Municipalities at Work.") 40

"The City of Manchester." Newland, F. W. Sunday at Home, Feb., March, April, 1900; Davies, E. A. Chaut. 28:531 (March, 1899). 41

"Contracts Scandal, Manchester." Mun. J. 9:889 (Nov. 8, 1900). 42

Garbage Disposal. See 56-40b.

History. "An Historical Account of Some Recent Enterprises of the Corporation of Manchester." Manchester, Blacklock, 1894. 43

"Housing of the Poor Problem in Manchester, The." Niven, James. San. Rec. 24:444 (Nov. 17, 1899). 44

——. "Housing Problem in the Provinces: The Manchester Experiments." Surveyor 18:88 (July 20, 1900). 45

——. "Manchester's Record in Municipal Housing." Mun. J. & London 8:173 (Feb. 9, 1899).

Lighting. "Electric Lighting and Traction, Manchester, England." Elec. R. (London) Oct. 29, 1897. 46

——. "Gas, Manchester Corporation's." Mun. J. & London 8:769 (June 30, 1899).

——. "Manchester Corporation Electric Works." (Technical Description). Wordingham, C. H. Practical Engineer (London) Jan. 22, 1897. 47

——. "Manchester Corporation Gas Supply." J. Gas Light 76:1590 (Dec. 25, 1900).

——. "Profitable Municipal Lighting in Manchester." (Short statistical account.) London 6:624 (July 22, 1897). 48

——. "Some Notes on the Comparative Cost of Supplying Light by Gas and Electricity in Manchester." Stevenson, G. E. J. Gas Lighting (London) Dec. 1, 1896; Gas Eng. M. April 10, 1897. 49

Municipal Ownership. (See History, Housing, Lighting and Transit Facilities).

"Park System of Manchester, England, The." Park & Cem. 10:199 (Nov. 1900). 50

Schools. "More about Manchester." (Art School.) Mun. J. 9:777 (Oct. 5, 1900). 51

——. "Municipal Technical School, Manchester, Eng." Roscoe, H. E. Nature 47:201 (1892). 52

Sewage Disposal at Manchester. Ansted, D. T. J. Soc. Arts 25:389 (1877); Olive, Wm. Thomas. Proceedings Institute Mechanical Engineers July, 1894; Grinnell, Wm. F. See 56-40a, 40b; anon, Eng. (London) Dec. 4, 1896, 88:511 (Nov. 24, 1899). 53

——. "Technical Educations, Manchester." Mun. J. 9:757 (Sept. 28, 1900).

——. "Manchester, Sewage Disposal Problem." Surveyor 18:305 (Sept. 14, 1900). 54

——. Sewage Disposal Problem at Manchester. Fuertes, James H. City Govt. 7:137 (Dec. 1899), Engng. Rec. 40:626 (Dec. 2, 1899), Engng. Rec. 41:594 (June 23, 1900), 41:613 (June 30, 1900). 55

——. "The Disposal and Treatment of the Sewage of the City of Manchester. Report of Experts appointed by Rivers Committee of the Manchester Corporation." Dated Oct. 30, 1899. With 25 Photographs and Diagrams. London, P. S. King. Cl., 8vo. 6s. In continuation of the above. Report of the Rivers Committee, Jan. 22, 1900, with Appendices. Numerous Diagrams. London, P. S. King. 8vo. 3s. 56

"Ship Canal, The Manchester." Dunell, George R. Engng. M. 2:204, 350 (1891); Corthell, Elmer L. J. W. Soc. of Engs., Feb. 1899. 57

"Slums, Manchester's Insanitary." San. Rec. 19:420 (May 7, 1897). 58

"Telephone Question, Manchester." Brocklehurst, F. Mun. J. 9:600 (Aug. 3, 1900). 59

Manchester, Eng.—*Continued.*

Transit Facilities. "Manchester Corporation Tramways." Ty. & Ry. World 8:456 (Nov. 2, 1899). 60

——. "Manchester Tramways." London 7:716 (Nov. 10, 1898).

——. "Report of Special Committee re Tramways." Manchester Council, 1895. 31 pp. Maps. 61

——. "The Manchester Tramway System." Brocklehurst, F. Ty. & Ry. World 8:467 (Dec. 7, 1899). 62

——. "Tramways for Manchester." Mun. J. 9:465 (June 15, 1900).

"Water Power Scheme, The Manchester." Mun. J. & London 8:762 (June 30, 1899). 63

"Water Supply of Manchester, Eng., The." Fuertes, James H. Engng. Rec. 38:9 (June 4, 1898). 64

"**Manchester, Mass.**, History of the Town of." Lamson, D. F. Published by the Town, 1891. 65

Manchester, N. H., History, Description and Statistics of, in 1880. Census. See 1-7. 66

"**Manila**, Health of." (Editorial). Sanitarian 43:67 (July, 1899). 67

"**Mansfield, Ohio**, The Parks of." Park & Cem. 9:250 (Feb. 1900). 68

Marburg in Steiermark. Housing. "Die Arbeiter-Colonie bei der Werkstätte der Südbahn-Gesellschaft in Marburg in Steiermark." Flattich, W. Wein, Lehmann u. Wenzel, 1875. 24m. 69

Marion, Ia.

"Sewage Distributing Tank and Automatic dosing Apparatus for Marion, Iowa." Barbour, F. A. Engng. News 42:27 (July 13, 1899). 70

Markets.

See also Belgium, Leicester, London, New York, Paris.

"Lebensmittelversorgung von Grossstädten in Markthallen, Zeitfragen, volkswirthschaftliche." Eberty, E. Berlin, 1884. 2m. 71

"Market Play Grounds." Waring, Geo. E. Hrprs. Wkly. 39:1237 (1895). 72

"Markets of some Great Cities, Symposium on the." Boston, [Mrs.] Mary J. Lincoln; Baltimore, Agnes M. Lathe; Chicago, Antoinette Van Hoesen Wakeman and San Francisco, Mabel C. Craft. Chaut. Dec. 1896. 73

"Mitteilungen über Markthallen in Deutschland, England, Frankreich, Belgium u. Italien." Hennicke. Jul. Berlin, Ernst u. Korn, 1881. 30m. 74

Marseilles, France.

Sanitation. "Les Travaux d'Assainissement de Marseille, leur Utilité et leur Fonctionnement." Genis, M. Louis. Marseille, Borthelet et Cie., 1895. 69 pp. Plates. Pamphlet. 75

"Sewage Disposal." Thomas Claude M. Cons. Rep. 47:227 (1895). 76

——. "The Sewerage of Marseilles, France." Fuertes, James H. Engng. Rec. 36:427 (Oct. 16, 1897). 77

Martinique, W. I.

"Municipal Taxes in Martinique." Testart, A. Cons. Report 59:671 (April, 1899). 78

Maryland.

"Local Institutions of Maryland." Wilhelm, Lewis W. J. H. Univ. Studies III: 5, 6 and 7. 79

"Sweatshops in Maryland, Protection of Garment Workers in." Bulletin of the Department of Labor, July, 1896. p. 564. 80

Massachusetts.

"Caucus Laws of Massachusetts." Gay, Richard L. N. Y. Conference on Practical Reform of Primary Elections, p. 57. Chicago, Hellister, 1898. 8vo, 150 pp. Paper. 81

Charity. "The Settlement Laws of Massachusetts in their application to outside poor relief." (With judicial decisions and practical suggestions.) Shaw, Henry. Boston, Geo. H. Ellis, 1900. 8vo, 205 pp. 82

"City Government in Massachusetts." Allen, W. F. Nation 33:169 (1881); Parker, Francis J. Boston, Calkins & Co., 1881. 24 pp. 83

——. "A Massachusetts Shoe Town." Sanborn, Alvan S. Atlan. (Aug. 1897). 84

Finance, Municipal. Annual Reports of the Tax Commissioner contain considerable data.

Franchises, Taxation of. (See Taxation below.)

"Growth of Cities in Massachusetts." Wadlin, Horace G. Am. Statis. Assoc. 2:159 (1889). Separate pamphlet No. 13, $1. 85

"Highway Construction in Massachusetts." Whittle, C. L. Pop. Sci. M. May, 1897. 86

History. "Genesis of the Massachusetts Town and the Development of Town Meeting Government." Adams, Charles Francis, and others. Reprinted from proceedings of the Mass. Hist. Soc. Jan. 1892. 93 pp. 87

Home Rule. "Public Administration in Massachusetts, the relation of central to local activity." Whitten, Robert Harvey. Columbia Univ. Studies in Political Science, Vol. 8, No. 4, New York, 1898. 8vo, 167 pp. Paper $1. 88

"Library Movement in its Parent Commonwealth, The Public." Baxter, Sylvester. Am. R. of Rs. 20:324 (Sept. 1899). 89

——. "Massachusetts Library Commission." Nourse, Henry S. The Citizen 1:12 (1895). 90

Lighting. "Die Stellung der Privaten Beleuchtungs-gesellschaften zu Stadt und Staat. Die Erfahrung in Wien, Paris und Massachusetts." Gray, John Henry. Jena, Gustav Fischer, 1893. 167 pp. 91

——. "Gas Commission of Massachusetts." Gray, John H. Q. J. E. 14:509 (Aug. 1900), Prog. Age 18:546 (Dec. 15, 1900). 92

——. "Massachusetts Electric Lighting Plants." Commons, J. R. Am. Statis. Assoc. 5:87 (1896). 93

——. "Public Supervision in Massachusetts." (Gas and electric lighting.) Allen, Walter S. Mun. Aff. 4:526 (Sept. 1900). 94

——. "Report of the Board of Gas and Electric Light Commissioners of the Commonwealth of Massachusetts." (Issued annually.) 16th Report, Boston, 1900. 8vo, 186 and clxxv pp. 96

——. "The Bay State Gas Company." Prog. Age 18:467 (Nov. 1, 1900).

"Municipal Ownership in Massachusetts." Francisco, M. J. Am. Gas Light J. 70:643 (May 1, 1899), Elec. W. & E. 33:505 (April 22, 1899). 97

——. "Lighting Plants in Massachusetts, Municipal." Engng. Rec. 41:537 (June 9, 1900).

Sanitation. "Manual for the Use of Boards of Health of Massachusetts, containing the Statutes relating to the Public Health, the Medical Examiner Laws, the Laws relating to the Registration of Vital Statistics, and the Decisions of the Supreme Court of Massachusetts relating to the same." Prepared by direction of the State Board of Health, 1894. 8vo, 213 pp. 98

——. "Mortality in Twenty-three Massachusetts Cities." Burnap, Charles E. Am. Statis. Assoc. Vol. V, No. 34. 1896. 99

"Sewage Disposal in Massachusetts." Stearns, F. P. Trans. Am. Soc. Civil Engineers 18:1 (1888). 100

——. "Assessments, Sewer, in Boston," by Charles R. Cutter. J. Assoc. Engng. Soc. 18:38 (Jan. 1897); in Newton, Mass., by Henry D. Woods, same 18:47; in Malden, Mass., by George A. Wetherbee, same 18:51; in Marlboro, Mass., by James F. Bigelow, same 18:57; in Pawtucket, R. I., by George A. Carpenter, same 18:59; in Fall River, Mass., same 18:61; by Philip D. Borden. 1

——. "Massachusetts Experiments on the Purification of Fresh, Stale and Septic Sewage." Clark, H. W. Engng. News 40:75 (Aug. 4, 1898). 2

——. "Notes on Water Supply and Sewage Disposal in Massachusetts and Rhode Island." Engng. News 38:349 (Nov. 25, 1897).

——. "Purification of Sewage and Water. Experim ental Investigations upon

Massachusetts—*Continued.*

Purification of Sewage, by Filtration and by Chemical Precipitation, and upon the Intermittent Filtration of Water." 10 pp. 3

——. "The Metropolitan Sewerage Systems of Massachusetts." Carson, Howard. Engng. News May 3, 1883, Jan. 25, Feb. 8, 1894. Technology Quarterly, Dec. 1893. 4

——. "The Septic Tank Experiments of the Massachusetts State Board of Health." Engng. Rec. 42:591 (Dec. 22, 1900). 5

"Sweating in Massachusetts." Wadlin, H. G. Am. J. Soc. Sci. 30:86 (1892). 6

"Taxation of Franchises in Massachusetts." Carret, James R. Mun. Aff. 4:506 (Sept. 1900). 7

Transit Facilities. "Report of Massachusetts Street Railways." St. Ry. R. 10:328 (June 15, 1900).

——. "Report to the Rapid Transit Commissioners of Massachusetts." Fitzgerald, John E. Boston, 1891. Appendix contains a detailed description of the Berlin City Railway. 8

——. Report of Special Committee on Street Railways. (See Transit Facilities under **Municipal Control.**)

——. "The Massachusetts Theory of Street Railway Rights and Privileges." (Reprinted from the New York Evening Post, Nov. 16, 1897.) Elec. Eng. 24:510 (Nov. 25, 1897). 10

"Unemployed, Massachusetts Investigation of the." Brooks, J. G. Econ. J. 4:361, 5:477 (1895), Closson, C. C. J. Pol. Econ. 3:488, 492 (1895). 11

Water Supplies. "Metropolitan Water Board." Ann. Am. Acad. Pol. Sci. 13:272 (March, 1899). 12

——. "Notes on Water Supply and Sewage Disposal in Massachusetts and Rhode Island." Engng. News 38:349 (Nov. 25, 1897). 13

——. "Purification of Sewage and Water. Experimental Investigations upon the Purification of Sewage, by Filtration and by Chemical Precipitation, and upon the Intermittent Filtration of Water." Massachusetts State Board of Health (with reports on Lawrence Experiments.) 1890. 8vo, 910 pp. 14

——. "Surface Water Supplies in Massachusetts." Haskell, John C. J. N. E. Water Works Assn. 13:79 (Dec. 1898). 15

——. "Water Supply and Sewage." Twenty-sixth Annual Report of the Massachusetts State Board of Health, 1895. 16

Mayor. (See under **United States,** and **Councils and Boards of Aldermen** for references on relative power of mayor and council in American cities.)

"Brooklyn Idea of City Government." Shepard, Edward M. Forum 16:38 (1893). 17

"City Government and Democracy." (Against concentration of power in hands of mayor.) Curley, E. A. Leslie's Wkly. 74:40, 126 (1892); Cosmopol. 14:737 (1893). 18

"Mayors of United States Municipalities." (Editorial.) M. & C. 4:12 (Sept. 1897). 19

"Municipal Cæsarism." (Concentration of power in hands of mayor.) Godkin, E. L. Nation 13:205 (1871). 20

"Office of Mayor in the United States." Greenlaw, Edwin A. Mun. Aff. 3:33 (March, 1899). 21

"Office of Mayor in the United States. A Study in Administrative Law." Bayles, G. J. Newark, M. Plum, printer, (doctor's dissertation), 1895. 8vo, 74 pp. 22

"Outgrown City Government." (Favors an autocratic mayor.) Parton, James. Forum 2:539 (1887). 23

"The Executive in the City." Bradford, Gamaliel. (Chapter XXXIII in "The Lesson of Popular Government.") New York, The Macmillan Co., 1899. 8vo, 2 vols. 520, 590 pp. Cl. $4. 24

"The Mayor and the City." Shepard, H. N. Atlan. 74:85 (1894). 25

"What a Mayor can do." Eustis, William Henry. City Govt. 1:3 (1896). 26

"What a Mayor should be." Nation 59:262 (1894). 27

"**Meat Inspection** in England, France and Germany." O'Neill, Henry. San. Rec. 26:540, 563 (Dec. 21, 28, 1900). 28

"**Medford [Mass.],** Municipal Practice in Sewer Construction." Barnes, T. Howard. Engng. Rec. 36:472 (Oct. 30, 1897). 29

"**Media [Pa.]**, The Water Works of." Ledoux, J. W. Engng. Rec. 40:618 (Dec. 2, 1899). 30

Melbourne, Aus.

"Lessons from Municipal Melbourne." Mun. J. 9:7 (Jan. 5, 1900). 31

"Melbourne: a City of the Empire." Dolman, Fred. Idler 15:15 (Feb. 1899). 32

"Sewerage in the City of Melbourne, New." Sanitarian 38:232 (March, 1897). 33

Transit Facilities. "The Great Street Railway System of Melbourne." King, F. W. N. St. Ry. R. 7:495 (Aug. 15, 1897). 34

——. "The Melbourne Tramway Company." Ty. & Ry. World 8:457 (Nov. 2, 1899). 35

"Water Supply, Melbourne." Engng. (London) 69:3 (Jan. 5, 1900). 36

Memphis, Tenn.

History, description and statistics of Memphis, Tenn., in 1880. Census. See 1-7. 37

"Municipal Condition of Memphis, Tenn." Malone, James H. p. 110 Proc. Third Natl. Conf. for Good City Govt., 1896. See 6-18c. 38

"Sewerage of Memphis, The." Baldwin, W. C. Am. Arch. 11:245 (1882); Odell, F. S. Transactions Am. Soc. Civil Engineers 10:21 (1881); Waring, George E., Jr. London, office of the Sanitary Institute of Great Britain, 1881. 18 pp. 39

——. "Sewers and Health—the Memphis Example." Sanitarian 43:227 (Sept. 1899). 40

"**Mendota [Ill.]**, Sewage Disposal at." Engng. Rec. 41:493 (May 26, 1900).

Merseburg, Ger. Housing. "Aus zwei deutschen Kleinstädten, ein Beitrag zur Arbeiterwohnungsfrage." (Merseburg u. Weissenfels.) v. Mangold, Carl. Jena, Fischer, 1894. 41

"**Merthyr Tydvil [Wales]**, The Water Works of." Engng. Rec. 41:224 (March 10, 1900). 42

Meters. (See under **Lighting** and **Water Supply.**)

"Use of Meters for Public Utilities." Pray, W. L. City Govt. 6:1 (Jan. 1899). 43

Mexico, City of.

"Drainage of the Valley and City of Mexico." Wright, Willis B. J. Assoc. Engng. Soc. 24:256 (April, 1900). 44

——. "The Drainage of the City of Mexico." Engng. Rec. 4:265 (March 24, 1900). 45

"Plaza, Alameda and Paseo in the City of Mexico." Park & Cew. 7:51, 93, 115 (May, June, July, 1897). 46

Sanitation. "Assainissement de Mexico." R. Technique 21:397 (Sept. 10, 1900). 47

Michigan.

"City Government of Michigan." (Principally Grand Rapids, Kalamazoo, Jackson, Saginaw and Detroit.) Ann Arbor, Studies in Finance and History, Michigan Univ., Vol. I, No. 6 (Dec. 1895). 25 cts. 48

——. "Local Government in Michigan and the Northwest." Bemis, E. W. J. H. Univ. Studies 1:5 (1883). 49

——. "Municipal Government in Michigan and Ohio. A Study of the Relations of City and Commonwealth." Wilcox, Delos F. New York, Macmillan, 1896. 184 pp. $1. 50

Finance. "Valuation of Railway and Other Corporate Property in Michigan, Expert." Engng. N. 44:430 (Dec. 20, 1900). 51

"Fire Departments of Cities and Villages, Number of Firemen, Wages and Privileges Allowed." pp. 133-153 of the "16th Annual Report of the Bureau of Labor and Industrial Statistics." Lansing, Bureau of Labor, 1899. 52

Home Rule. "Local Self Government, so-called, as it is found in the Constitution of Michigan." Kirchner, Otto. Ann Arbor, Studies in Finance and History, Michigan Univ. Vol. I, No. 4 (April, 1899). 25 cts. 53

Michigan—*Continued.*

"Municipal Ownership of Michigan Street Railways, The Prohibition of." Engng. Rec. 40:213 (Aug. 5, 1899). 54

"Paving in Michigan, Street." Engng. Rec. 40:625 (Dec. 2, 1899).

"Police Departments. Number employed, with Salaries and Wages Paid by Cities and Towns in the State." pp. 155-163 of the "16th Annual Report of the Bureau of Labor and Industrial Statistics." Lansing, Bureau of Labor, 1899. 55

"Public Expenditures and Permanent Improvements of 1898. Pay of City Laborers and Teams." pp. 187-200 of the "16th Annual Report of the Bureau of Labor and Industrial Statistics." Lansing, Bureau of Labor, 1899. 56

Sanitation. "Past and Present Movements for Sanitary Progress in Michigan." Baker, Henry B. Pamphlet, Reprint from Report of State Board of Health, 1893. 12 pp. 57

"Statistics of Chartered Cities and Incorporated Villages, Michigan." Published annually since 1898 in the Report of the Bureau of Labor and Industrial Statistics.

"Water and the Water Supply in Michigan." Hazlewood, Arthur. Pamphlet reprinted from the fourth annual report of the Michigan State Board of Health for 1876. 7 pp. 58

——. "Michigan Water Supplies." Williams, Gardner S. pp. 55-61 in "Proceedings of the Fourth General Conference of Health Officers in Michigan, 1899." 59

——. "Report on the Water Supply of Michigan." Kedzie, Robert C. Pamphlet reprinted from the Fourth Annual Report of the Mich. State Board of Health for 1876. 10 pp. 60

Milan, Italy.

Charity. "Sul Concentramento delle instituzióni di Beneficenza: memoria delle congregazione di carita di Milano al consiglio comunale." Milona, Tip. fr. Bietti et G. N., 1892. 35 pp. 61

City Government. "Nel Municipio di Milano." Vigoni, G. Nuova Ant. 36:722 (Oct. 16, 1899). 62

"Cremation at Milan." Edwards, H. S. Westm. 134:182 (1890). 63

Elections, Municipal. d'Arzago, A. de C. Rassegna Nazionale Nov. 1, 1899. 64

——. "Le Elezioni Amministrative a Milano." Cornaggia, C. O. Nuova Ant. 84:108 (Nov, 1, 1899). 65

Finances. "Le Finanze di Milano nel Inedio Evo: noto di conferenza." Mauri, Aug. Monza, Artigianelliorfani, 1898. 8vo, 27 pp. 66

"Municipal Ownership of Street Railways in Milan." St. Ry. Rev. 7:387 (300 w.) (June 15, 1897); St. Ry. J. 13:400 (July, 1897). 67

"Tramways in Milan." Jarvis, W. Cons. Rep. 61:135 (Sept. 1899). 68

"Working Class Settlements in Mülhouse and Milan." Hancock, C. Fortn. 62:94 (1894). 69

"**Milford, N. Y.**, A Small Water Purification Plant at." Engng. News 38:359 (Dec. 2, 1897). 70

Milk Supply, Municipal Control of the. (See under **Municipal Control, Municipal Ownership,** also under **Paris.**)

Milwaukee, Wis.

City Government, General Works, Unclassified.

"City of Milwaukee." Howard, William Willard. Hrprs. Wkly. 35:538 (1891). 71

History, description and statistics of Milwaukee, Wis., in 1880. Census. See 1-7. 72

"Milwaukee, the German City of America." Goes, Edmund. Chaut. 27:659 (Sept. 1898). 73

"Municipal Government of Milwaukee." Winkler, F. C. p. 119, Proc. Second Natl. Conf. for Good City Govt., 1895. See 6-18b. 74

Elections. "Draft of an Act to Prevent Corrupt Practices in General and Primary Elections." (With Argument.) Published by the Municipal League of Milwaukee, 1896. 16 pp. 75

"Library and Museum, Milwaukee's New." Hrprs. Wkly. 41:412 (April 24, 1897).

"Paving Report, Milwaukee." City Govt. 2:8 (Jan. 1897).

Milwaukee, Wis.—*Continued.*

"School System, The Milwaukee." Mowry, Duane. Ed. R. 20:141 (Sept. 1900). 76

——. "Duties of School Boards, School Superintendents and others in Cities of the First Class in the State of Wisconsin." Published by the Municipal League of Milwaukee, 1897. 10 pp. 77

"Sewage of Milwaukee." Benzenberg, Geo. H. Engng. Rec. Sept. 2, 1893, p. 219. (See also Engng. News Nov. 9 and 16, 1893). 78

Transit Facilities. "Decision in the Milwaukee 4-Cent Fare Case." Anon. St. Ry. Rev. 8:437 (July 15, 1898); Outlook 59:419 (June 18, 1898); St. Ry. J. 14:397 (July, 1898), 16:1122 (Nov. 10, 1900). 79

——. "Electric Railway System of Milwaukee and Eastern Wisconsin, The." St. Ry. J. 15:339 (June 1899). 80

——. "Electric Tramways, Milwaukee." Ty. & Ry. World 9:1 (Jan. 11, 1900).

——. "Street Railway Problem in Milwaukee." Butler, John A. Mun. Aff. 4:212 (March, 1900). 81

——. "Street Railway System of Milwaukee." St. Ry. Jour. Nov, 1892, p. 683. 82

"Water Rates in Milwaukee." (Editorial.) Engng. Rec. 38:177 (July 30, 1898), 39:90 (Dec. 31, 1898). 83

Minneapolis, Minn.

City Government, General References and Unclassified.

"Citizens' Law Enforcement League of Minneapolis." Speare, S. L. Our Day 9:315 (1892). 84

History, description and statistics of Minneapolis, Minn., in 1880. Census. See 1-7. 85

"Hudson's Dictionary of Minneapolis and Vicinity, a Handbook for strangers and residents." Minneapolis, Horace B. Hudson, fourth year, 1900. 124 pp. 86

"Minneapolis." In the article "Capitals in the Northwest." Ralph, Julian. Harper 84:576 (1892); Howard, William W. Hrprs. Wkly. 34:413 (1890). 87

"Municipal Government of Minneapolis." Simpson, D. F. p. 93 Proc. Second Natl. Conf. for Good City Govt., 1895. See 6-18b. 88

Liquor Problem. "Limiting Saloon Territory: The Minneapolis Plan." Cross, Judson N. Bib. Sacra. 57:405 (July, 1900). 89

——. "Minneapolis and the Saloons." Harwood, W. S. Outlook 63:206 (Sept. 23, 1899). 90

"Park Systems of Minneapolis and St. Paul, The." Robbins, Mary C. Garden and F. 10:162 (April 28, 1897). 91

"Schools of Minneapolis, Public." Rice, J. M. Forum 15:362 (1893). 92

"Street Railway Tracks in Minneapolis and St. Paul, The Construction of." Engng. News 38:246 (Oct. 14, 1897). 93

"Water Works, New Reservoirs of the Minneapolis." Engng. Rec. 36:312 (Sept. 11, 1897).

——. "Water Waste at Minneapolis." McConnell, John H., and Moody, Frank T. City Govt. 6:116 (May, 1899). 94

Minnesota.

"Cities." pp. 64-83 in "Minnesota—State, County, Township and City." A Handbook of Information concerning the State, its Government, Officers and Resources." McVey, Frank L. Minneapolis, University Book Store, 1898. 12mo, 83 pp. 95

"Laws for Minnesota Cities, New." Ralph, Julian. Hrprs. Wkly. 39:829 (1895). 96

Minority Representation. (See **Proportional Representation.**)

Missions and Mission Philanthropy. (See **Charity.**)

"**Missouri**, Taxation in, A Treatise upon the Law and Practice of." Judson, Frederick N. Columbia, Mo., Stephens, 1900. 8vo, 258 pp. 97

"**Mobile, Ala.**, History of." Hamilton, Peter J. See 1-4c. 98

"**Moline, Ill.**, Garbage Collection and Disposal at." Kittilsen, Edward. Engng. News 43:90 (Feb. 8, 1900). 99

Monaco.

Transit Facilities. "Electric Tramways of Monaco." Ry. World 7:353 (Nov. 1898). 100

——. "Surface Contact Street Railroad at Monaco." Elec. Eng. 26:565 (Dec. 8, 1898).

Money in Politics. (See under **Elections.**)

Monopolies, Municipal. (See under **Municipal Control, Municipal Ownership.**)

"**Montgomery, Ala.**, History of." Petrie, George. See 1-4c. 1

Montreal, Canada.

"Incomes, Wages and Rents in Montreal." Ames, Herbert Brown. Bulletin Dept. Labor No. 14, p. 39 (Jan. 1898). 2

"Municipal Reform in Montreal." Canadian M. 12:457 (March, 1899). 3

"Sewage Farm for the St. Denis Ward of Montreal, New." Engng. News 43:54 (Jan. 25, 1900).

Monts de Piete. (See under **Pawnshops.**)

Monuments, Public. (See **Art, Municipal.**)

Mortality and Vital Statistics of Cities. (See under **Statistics of Cities.**)

Moscow.

Sanitation for Fifteen Years, Moscow. Petrovsky, A. G. Russki Vyestnik Nov. 1900. 4

Transit Facilities. "Die elektrischen Linien der ersten Strassenbahn-Gesellschaft in Moskau." Krannbals, Erich. Elektrotech. Zeitschr. Feb. 8, 1900. 5

——. "Important Changes Proposed in the Tramways of Moscow." St. Ry. J. 16:470 (May 5, 1900). 6

"**Mount Vernon, N. Y.**, Sand Filtration at." Chester, John S. Fire & W. 23:2 (Jan. 1, 1898). 7

Mülhausen, Ger.

Housing. "Arbeiter-Kolonien in Mülhausen, Stuttgart u. Leinhausen." Schwering, L. Deutsche Bauz. p. 548, 1884. 8

——. "Cités Ouvrières de Mülhouse." Muller. Nouv. Annales de la Const. p. 79, 1856. 9

——. Die Arbeiterstadt zu Mülhausen im Elsass. Romberg's Zeitsch. f. pract. Bauk. p. 213, 1861; Zeitschr. d. Arch u. Ing.-Ver. zu Hannover, p. 463, 1863; Schall, M. Berlin, Kortkampf, 1876. 1m. 60 pf. 10

——. "Working Class Settlements in Mulhouse and Milan." Hancock, C. Fortn. 62:94 (1894). 11

Munich.

"Baths at Munich, The Müller Public." Engng. Rec. 39:259 (Feb. 19, 1899). 12

Burials. "Mortuary Chambers at Munich, Germany, The." Park & Cem. 8:50 (May, 1898).

Court Buildings in Munich, The New. Schweizerische Bauzeitung Jan. 22, 29, Feb. 5, 1898.

Housing. "Das Wohnungselend der Minderbemittelten in München. Nach den Ergebnissen der Statistischen Erhebungen der Katholischen organisierten Arbeiterschaft Münchens." Schirmer, Carl. 68 pp. 13

Lighting. "Experience with Street Lighting at Munich by Means of Incandescent Gas Lamps." Am. Gas Light J. 69:235 (Aug. 15, 1898). 14

——. "Die städtischen Elektricitätswerke Münchens." Elektroteknische Zeitschr. Jan. 7, 1897. 15

"Sewage Disposal." Steiner, Ralph. Cons. Rep. 47:229 (1895). 16

——. "Der gegenwärtige Standpunkt d. Städtereinigungsfrage u. die Einführung d. Schwemmkanalisations system in München." Braungart, R. Freising, Datterer, 1890. 8vo, 54 pp. 1m. 17

Munich—*Continued.*

——. "The Sewerage of Munich, Bavaria." Fuertes, James H. Engng. Rec. 37:8 (Dec. 4, 1897). 18

Streets. "Façaden für die neue Maximiliansstrasse in München." Gottgetreu, R. Zeitscher. f. Bauw. p. 313, 1855. 19

"Water Works of Munich, Germany, The." Fuertes, James H. Engng. Rec. 38:78 (June 25, 1898). 20

"Municipal Buildings." Hare, H. T. Builder Jan. 18, 1896. 21

Municipal Control, Municipal Ownership.

See also under Austin (Tex.), Belgium, Birmingham (Eng.), Boston, Chicago, Columbus (O.), Concord (N. H.), Detroit, England under United Kingdom, Glasgow, Great Britain under United Kingdom, Halle, Hammersmith, Haverhill (Mass.), Illinois, Indianapolis, Iowa, Islington, Italy, Kansas, London, Massachusetts, Milwaukee, Nebraska, New York City, New York State, Omaha, Paris, Philadelphia, San Francisco (Cal.), Toledo, United Kingdom, United States, Utica, Wallingford (Conn.), Washington, West Ham.

To facilitate reference, the literature upon this subject has been arranged as follows:

General Works, pp. 157-164.
Lighting—General, pp. 164-5.
—Electricity, pp. 165-6.
—Gas, pp. 166-7.
Milk Supply, p. 167.
Telephones, p. 167
Transit Facilities, pp. 167-9.
Water Works, p. 169.

GENERAL WORKS.

"Accounting of Public Service Industries, The." Allen, Walter S. and Tooke, Charles W. Pp. 155-168 in "Proceedings of the Columbus Conference, 1899. See 6-18f. 22

——. "Accounting of Public Service Industries, The." Tooke, C. W. Other Side 1:307 (Dec. 30, 1899). 23

——. "Accounts of Grantees of municipal franchises." Allen, Walter S. Columbus Conference for Good City Govt. 1899, p. 162. See 6-18f. 24

——. "The Bookkeeper of Public Service Industries." Tooke, C. W. Mun. Engng. 19:7 (July, 1900). 25

——. "Uniform Accounting and Municipal Ownership." Cahoon, J. B. St. Ry. R. 10:337 (June 15, 1900). 26

——. (See also under Profits below).

"Attitude of Municipal Corporations to the Public, The." Boyd, John G. Am. Gas Light J. 72:650 (April 23, 1900), St. Ry. J. 16:417 (April 28, 1900), City Govt. 8:118 (May, 1900), Prog. Age 18:212 (May 15, 1900), Public Policy 2:315 (May 19, 1900). 27

"Avarice of Municipalities, The." Raworth, John. Lightning 14:403 (Nov. 10, 1898); Discussed in Lightning 14:411 (Nov. 17, 1898), 14:435 (Nov. 24, 1898), 14:459 (Dec. 1, 1898). 28

"Business of a City, The." McGuire, James K. City Govt. 4:12 (Jan. 1898). 29

"Capitalization of Public Service Corporations, The." Ripley, William Z. Q. J. E. 15:106 (Nov. 1900). 30

"Combined Public Franchises, Practical Experience in the Operation of, by one Company." Uebelacker, C. F. St. Ry. J. 16:890 (Sept. 29, 1900). 31

Control. Control vs. Ownership. "Control of Public Service Corporations." Coler, Bird S. Mun. Ownership 1:10 (June, 1900); Foote, Allen R. Engng. M. 9:50 (1895). 32

——. "Control of Public Service Industries." Foote, Allen Ripley. Pp. 121-123 in "Pro. Third Annual Conv. League of Am. Municipalities, 1899." 8vo, 148 pp. Paper. 33

——. "Demand for the Public Regulations of Industries." Dabney, W. D. Ann. Am. Acad. Pol. Sci. 2:433 (1892). 34

——. "Fallacy of Municipal Ownership of Franchises, Control not Possession the

Municipal Control—*Continued.*

Solution of the Problem." Loomis, Frank M. Engng. M. 11:814 (1896), p. 207 Proc. Third Natl. Conf., 1896. See 6-18c. 35

——. "Municipal Control, Municipal Ownership and." Brown, Chas. Carroll. Mun. Engng. 14:1 (Jan. 1898). 36

——. "Municipal Control of Public Works." Malochee, H. J. J. Assoc. Engng. Soc. 21:149 (Oct. 1898). 37

——. "Municipal Regulation of Public Franchises." Redmond, John M. City Govt. 6:10 (Jan. 1899). 38

——. "New Plan for the Control of Quasi-Public Works." Forrest, J. D. Am. J. Sociol. 3:837 (May, 1898). 39

——. "Possibilities and Limitations of Municipal Control, The." Rowe, L. S. Ann. Am. Acad. Pol. Sci. May, 1900, Supp. p. 7. 40

——. "Public Control of Municipal Franchises." Pingree, Hazen S. P. 216, Proc. Third Natl. Conf., 1896. See 6-18c. 41

——. "Public Ownership vs. Regulated Natural Monopolies." Foote, Allen Ripley. Prog. Age 17:498 (Nov. 1, 1899), Other Side 1:271 (Dec. 9, 1899), 1:283 (Dec. 16, 1899), 1:295 (Dec. 23, 1899). 42

——. "Regulation or Ownership." Bemis, Edward W. Chapter IX, pp. 631-680, in "Municipal Monopolies," see no. 86 below. 43

——. Regulation of Rates. Barnard, Job. Public Improvements 2:269 (April 16, 1900); McLean, George. Prog. Age 18:235 (June 1, 1900); Am. Gas Light J. 72:892 (June 4, 1900), Mun. Engng. 19:41 (July, 1900). 44

——. "Relation of Modern Municipalities to Quasi-Public Works." Adams, Henry C., with George W. Knight, David R. Dewey, Chas. Moore, Frank J. Goodnow and Arthur Yager. Publications of the Am. Econ. Assoc. No. 12, 1887. 87 pp. 75c. 45

——. "Relation of a Municipality to Quasi-Public Corporations Enjoying Municipal Franchises." Salter, Wm. M. P. 219, Proc. Third Natl. Conf., 1896. See 6-18c. 46

——. "Rights of the Public over Quasi-Public Services." Clark, Walter. Arena 18:470 (Oct. 1897). 47

——. "State Control of Corporations." Cahoon, James Blake. Mun. Aff. 4:520 (Sept. 1900). 48

——. "Trials and Troubles of Instituting and Enforcing Municipal Inspection and Control." Canfield, M. G. City Govt. 9:94 (Oct. 1900). 49

"Corporations against the People, The." Flower, B. O. Arena 19:218 (Feb. 1898). 50

——. "Powers and Privileges of Corporations versus Rights of the People, The." Wright, Austin W. Elec. Engng. 10:195 (Oct. 15, 1897), 10:221 (Nov. 1, 1897), 10:249 (Nov. 15, 1897). 51

Cost of Municipal Service. (See under Municipal Ownership below).

"Economic Productivity of Municipal Enterprises, Methods of Determining the." Wilcox, Walter F. Am. J. Sociol. Nov. 1896. 52

Expropriation with or without Indemnity. "L'Expropriation avec ou sans Indemnité." Vandervelde, E. R. Soc. 31:460 (April, 1900). 53

Franchises. "Careless granting of Franchises for small Municipalities." Engng. Rec. Feb. 22, 1896. 54

——. "Construing Certain Clauses in Municipal Franchises." Hill, John W. Mun. Engng. 16:38 (June, 1899). 55

——. "Duration of Franchises." Lewis, Charlton T. Mun. Aff. 3:256 (June, 1899). 56

——. "Economic Aspects of Municipal Franchises." Foote, Allen Ripley. Elec. R. 36:210 (Feb. 28, 1900). 57

——. "Essentials of Good City Government in the Way of Granting Franchises." Bemis, E. W. P. 125, Proc. Second Natl. Conf., 1896. See 6-18b. 58

——. "Franchises." McKisson, Robert E. Prog. Age 17:71 (Feb. 15, 1899). 59

——. "Franchise Problems." (Editorial). Ind. 51:1383 (May 18, 1899). 60

——. "How Should the Franchise Question be Settled?" Foote, Allen Ripley. Prog. Age 17:234 (June 1, 1899), 17:263 (June 15, 1899), 17:298 (July 1, 1899), 17:334 (July 15, 1899), 17:353 (Aug. 1, 1899); anon. City Govt. 6:57 (March, 1899). 61

——. "Law of Incorporated Companies operating under Municipal Franchises." Foote, Allen R. and C. E. Everett. Cincinnati, Robert Clarke & Co., 1892. 2

Municipal Control—*Continued.*

vols., 2460 pp. $12. Reviewed in Yale R. 3:35 (1894), by H. C. White. 62

——. "Mayors on Franchises." Short articles by Mayors Wurster of Brooklyn, Doran of St. Paul, McGuire of Syracuse, MacVicar of Des Moines, Taggart of Indianapolis and Ochs of Chattanooga. City Govt. 1:69 (1896). 63

——. "Municipal Franchises." Richardson, Charles. Discussion by Jones, Samuel M. (p. 220), Swift, Lucius B. (p. 227), and Bemis, Edward W. (p. 231). Pro. Indianapolis Conf. p. 94, 1898. See 6-18e. Same subject, Richardson, Charles. Pp. 120-8 in "A Municipal Program." New York, Macmillan, 1900. 8vo, 246 pp. Cl. $1. 64

——. "Municipal Franchises." Smith, Edwin Burritt. Other Side 1:205, 217, 234, 246, 255 (Nov. 4,-Dec. 2, 1899), Self Cult. 9:449 (June, 1899); Woodruff, Clinton Rogers. Ind. 50:538 (April 28, 1898); anon. City & State 5:250 (Oct. 20, 1898). 65

——. "Municipal Franchise Contracts." Keeler, H. E. Engng. Rec. 38:75 (June 25, 1898) Am. Gas Light J. 69:47 (July 11, 1898) City Govt. 5:21 (July, 1898) Fire & W. 24:395 (Nov. 19, 1898), 24:404 (Nov. 26, 1898). 66

——. "Municipal Franchises and their Abuses." McKisson, Robert E. City Govt. 6:23 (Feb. 1899). 67

——. "Pay for City Grants." (Reprinted from Chicago Inter-Ocean). City Govt. 4:169 (May, 1898). 68

——. "Proposed Solution of Municipal Franchise Problems." St. Ry. J. 15:537 (Aug. 1899). 69

——. "Public Franchises." Commons, John R. Our Country 5:70 (March 1897). 70

——. "Remuneration to cities for Franchise Rights in, over and under Public Streets and Alleys." McMurray, T. S. City Govt. 5:62 (Aug. 1898), Prog. Age 16:411 (Sept. 1, 1898). 71

——. Taxation of Franchises. (See under **Finance.**)

——. "Valuation of Franchises, The." Marshall, Matthew. (Reprinted from the N. Y. Sun). Mun & Ry. Rec. 4:170 (May 15, 1899). 72

——. "Municipal Franchises, What They are Worth and How They are Taxed." Meriwether, Lee. Outlook 58:920 (April 9, 1898). 73

——. "Valuation Clauses in Municipal Franchises." Hill, John W. Engng. Rec. 39:594 (May 27, 1899) Am. Gas Light J. 70:849 (June 5, 1899). 74

——. "What Would the Ideal Franchise Contain." St. Ry. R. 10:715 (Dec. 15, 1900). 75

Functions, Limits of Municipal. Acworth, W. M. Economic J. 8:454 (Dec. 1898); de Mattini, G. B. Critica Sociale 10:255 (Aug. 16, 1900); Devonshire, Duke of. Mun. Rec. & Ad. 2:379 (March 5, 1898); Smart, William. Mun. J. & London 8:711 (June 16, 1899), 8:735 (June 23, 1899) Mun. World 9:154 (Sept. 1899); Wambaugh, Eugene. Atlan. 81:120 (Jan. 1898); Wattenberg, William. City Govt. 4:135 (April, 1898); (Editorial), Mun. Rec. & Ad. Vol. I, No. 23, p. 5 (Nov. 13, 1897). 76

——. "Powers of Municipalities, A Discussion." Foote, Allen Ripley. Takoma Park, D. C., 1898. Pamphlet, 79 pp. 77

Housing, Municipal or State Action regarding. (See under **Housing**).

——. Ideal City. "La Cité Idéale." Fournière, Eugène. Rev. Soc. 28:140 (Aug. 1898). 78

Land in Large Cities, Municipalization of. "La Municipalization du Sol dans les Grandes Villes." Einaudi, Luigi. Paris, V. Giard & E. Brière, 1898. Pamphlet, 60 pp. 79

"Light, Heat and Power, Municipal." Adams, Alton D. Mun. Engng. 18:293 (May, 1900). 80

Limits of Municipal Functions. (See Functions above).

Monopolies. "City Monopolies." Pp. 194-213 of W. W. Cook's "Corporation Problem." New York, Putnam, 1891. $1.50. 81

——. "Legal Aspects of Monopoly." Parsons, Frank. Chapter VI, pp. 425-504, in "Municipal Monopolies." See no. 86 below. 82

——. "Monopoles Communaux. Eclairage au Gaz et à l'Electricite. Distribution D'Eau et de Force Motrice. Omnibus, Tramways (these)." Caen, impr. Valin, 1898. 8vo, 271 pp. 83

——. "Monopolies and the People." Baker, Charles Whiting. (3d ed.) New York, G. P. Putnam's Sons, 1899. 12mo, 368 pp. Cl. $1.50. 84

——. "Monopolies and Trusts." Ely, Richard T. New York, Macmillan Co.,

Municipal Control—*Continued.*

1900. 12mo, 278 pp. Cloth, $1.25. 85

——. "Municipal Monopolies." Bemis, Edward W. (Editor). New York, Crowell & Co., 1899. 12mo, 691 pp. Cl. $2. 86

——. "Municipal Monopolies." Commons, John R. Pp. 121-151, in his "Social Reform and the Church." New York, T. Y. Crowell & Co., 1894. 176 pp. 75c. 87

——. "Municipal Monopolies." Ogden, R. Nation 58:285 (1894). 88

——. "Municipal Monopolies and their Management." Sinclair, A. H. Toronto Univ. Studies No. 2, 1891. 89

——. "Natural Monopolies." Ely, R. T. Lend a H. 4:178 (1889); No. Am. 158:294 (1894). 90

——. Trusts in Municipal Services. "Les Trusts dans les Services Municipaux." Section 1 in "Les Services Publics et la Question des Monopolies aux Etats-Unis." Rousiers, Paul de. Rev. Pol. e Par. 18:81 (Oct. 1898). 91

"Municipal Empiricism." (Editorial). Mun. Rec. & Ad. Vol. I, No. 17, p. 3, Oct. 2, 1897. 92

Municipal Ownership, General articles on. Bemis, E. W. Other Side 1:256 (Dec. 2, 1899); Bourke, John Walton. Elec. Engng. 12:54 (Aug. 1898); Britton, John A. Am. Gas Lgt. J. Aug. 24, 1896; Foote, Allen Ripley. City Govt. 3:91 (Sept. 1897); Francisco, M. J. Engng. M. 5:725 (1893), 9:41 (1895) Elec. World, June 5, 1897; Hopkins, Henry. Elec. Eng. 26:364 (Oct. 13, 1898), 36:389 (Oct. 20, 1898), 26:407 (Oct. 27, 1898), Johnson, Henry V. City Govt. 7:59 (Sept. 1899); Public Improvements 1:234 (Oct. 1, 1899), Prog. Age 17:446 (Oct. 16, 1899) Other Side 1:235 (Nov. 18, 1899); Jones, Samuel M. City Govt. 5:59 (Aug. 1898), Arena 21:766 (June, 1899); MacVicar, John. City Govt. 7:80 (Oct. 1899), Prog. Age 17:495 (Nov. 1, 1899), Other Side 1:223 (Nov. 11, 1899); Parke, Roderick J. Can. Eng. 6:31 (June, 1898); Pingree, Hazen S. Public Improvements 2:169 (Feb. 15, 1900); Robinson, J. R. City Govt. 7:68 (Sept. 1899), Public Improvements 1:243 (Oct. 1, 1899); Other Side 1:247 (Nov. 25, 1899); Tafel, Gustav. City Govt. 7:64 (Sept. 1899), Public Improvements 1:241 (Oct. 1, 1899), Other Side 1:239 (Nov. 18, 1899); Yerkes, Charles T. Public Policy 2:101 (Feb. 17, 1900); anon. Prog. Age 15:366 (Aug. 16, 1897); Ind. 50:18 (Jan. 6, 1898); Elec. Eng. 25:578 (May 26, 1898); Ind. 51:1033 (April 13, 1899); St. Ry. J. 15:521 (Aug. 1899); Elec. Eng. 23:194 (Feb. 17, 1897); Mun. Rec. & Ad. 2:477 (April 15, 1898); P. Ownership R. 2:49 (Aug.-Sept. 1898); Am. Gas Light J. 70:533 (April 10, 1899); Mun. World 9:79 (May, 1899); Public Improvements 1:141 (Aug. 15, 1899), City and State 9:134 (Aug. 30, 1900). 93

——. "Advantages of Municipal Ownership." Shaw, Albert. Pp. 89-93 in "Report of the Street Railway Commission of the City Council of the City of Chicago." City Council, Chicago, 1900. 8vo, 136 pp. Paper. 94

——. "Business Argument against Municipal Ownership, A." Cahoon, James Blake. City Govt. 7:778 (Oct. 1899), Public Improvements 1:252 (Oct. 1, 1899), Prog. Age 17:461 (Oct. 16, 1899), Other Side 1:185 (Oct. 21, 1899). Pp. 83-88 Proceedings Third Annual Convention, League of American Municipalities, 1899. 8vo, 148 pp. Paper. 95

——. "Business Argument, A Reply to a." Gonden, Harvey James. Mun. Ownership 1:12 (June, 1900). 96

——. "City for the People, The, or the Municipalization of the City Government and of Local Franchises." Parsons, Frank. Philadelphia, C. F. Taylor, 1900. 8vo, 597 pp. Cl. $1. 97

——. "Cost of Municipal Enterprise, The." Davies, Dixon Henry. London, P. S. King & Son, 1899. 8vo, 71 pp. Paper, 2s. Reprinted in J. Soc. Arts 47:225 (Feb. 3, 1899), J. Gas Lgt. 73:301 (Feb. 7, 1899), Prog. Age 17:107 (March 15, 1899). 98

——. "Cost of Service to Users and Taxpapers." Foote, Allen R. Elec. Eng. 24:428 (Nov. 4, 1897), Prog. Age 15:539 (Nov. 1897); MacVicar, John. City Govt. 4:8 (Jan. 1898), Prog. Age 16:72 (Feb. 15, 1898). 99

——. "Essay on Public Ownership, An." Wisner, Edward. St. Ry. R. 9:845 (Dec. 15, 1899). 100

——. "Expediency and Local Conditions, Municipal Ownership; A Question of." Laughlin, J. Lawrence. Pp. 94-98 in "Report of the Street Railway Commission of the City Council of the City of Chicago." City Council, Chicago, 1900. 8vo, 136 pp. Paper. 1

——. "Experiences with Municipal Plants, Some." Shepardson, G. D. Elec. W. & E. 36:62 (July 14, 1900), Am. Gas Light J. 73:130 (July 23, 1900), City Govt. 9:35 (Aug. 1900). 2

——. "Failure of Municipal Ownership, The." Vreeland, H. H. Ind. 52:1165

Municipal Control—*Continued.*

(May 17, 1900). 3

——. "Fallacies of Municipal Ownership." Francisco, M. J. City Govt. 7:65 (Sept. 1899), Public Improvements 1:256 (Oct. 1, 1899), Prog. Age 17:465 (Oct. 16, 1899), Other Side 1:211 (Nov. 4, 1899). Pp. 90-99 Proc. Third Annual Convention, League of American Municipalities, 1899. 8vo, 138 pp. Paper. 4

——. Foreign Experience. "Shall American Cities Municipalize? Value of Foreign Experience as a Guide." Agar, John G. Mun. Aff. 4:13 (March, 1900). 5

——. "Franchises or Monopolies, their Public Ownership and Operation." Tremain, Henry Edwin. Ann. Am. Acad. Pol. Sci. 14:310 (Nov. 1899). 6

——. "Government Ownership, an account of 337 now existing National and Municipal Undertakings in the 100 principal countries of the World." Vrooman, Walter. Baltimore, Patriotic Literature Publishing Co., 1895. 219 pp. $1. 7 ✓

——. Jones, Mayor S. M. "Mayor Jones and Public Ownership Vivisected." Wisner, Edward. Other Side 1:199 (Oct. 28, 1899). 8

——. "Legal, commercial and political review of the question of municipal ownership of semi-public enterprises of profit." Quilty, C. W. Am. Gas Lgt. J. 67:286 (Aug. 23, 1897). 9

——. "A Matter of Municipal Ownership, and What Came of It." "F. M." Hrprs. Wkly. 41:1074 (Oct. 30, 1897). 10

——. "Movement to Limit Municipal Ownership." Porter, Robert P. City Govt. 7:124 (Nov. 1899). 11

——. "Municipal Advantages, How to Obtain them." (Against Municipal Ownership). Foote, Allen R. Progressive Age July 1, 1896. (Reviewed in Journal of Gas Lighting for Aug. 18, 1896). 12

——. "Municipal vs. Corporate Price." Foote, Allen Ripley. Business 19:477 (Aug. 1899). 13

——. "Municipal Liberty." Parsons, Frank. City Govt. 5:237 (Dec. 1898). 14

——. Municipal Ownership. Pp. 199. "The Social Crisis." Ostrander, Dempster. New York, F. T. Neely, 1898, 270 pp. 50c. 15

——. Municipal Ownership. Discussion of, in Proceedings of the Third Annual Convention of the League of American Municipalities, 1899. (8vo, 148 pp. Paper). Bemis, Edward W. pp. 123-135; Cahoon, James B. pp. 83-88; Francisco, M. J. pp. 90-99; Gemünder, M. A. pp. 71-78; Johnson, Henry V. pp. 51-55; MacVicar, John. pp. 105-110; Pierce, Frank G. pp. 58-62; Robinson, J. R. pp. 57-58; Tafel, Gustav. pp. 55-57. 16

——"Municipal Ownership at Home and Abroad." Porter, Robert P. New York, 1898. 12mo, 31 pp. Pamphlet. 17

——. "Municipal Ownership discussed by Mayors Jones of Kansas City, Wood of Seattle, Todd of Louisville, McGuinnes of Providence. Saltsman of Erie and Green of Binghamton." City Govt. 2:69 (March, 1897). 18

——. Municipal Ownership and Operation of Public Utilities. Baldwin, A. S., p. 2; Reed, Charles Wesley, p. 3; Mchts. Assoc. R. Vol. V, No. 49, Sept. 1900; Dohrmann, F. W., Babcock, Kendric C., Symmes, Frank J., Weinstock, Henry, Ross, Edward A. Mchts. Assn. R. Vol. V, No. 52, Dec. 1900. 19 ✓

——. "Municipal Ownership in Practice." Pierce, F. G. City Govt. 7:67 (Sept. 1899), Public Improvements 1:238 (Oct. 1, 1899), Prog. Age 17:447 (Oct. 16, 1899). Pp. 58-62 in Proc. Third Annual Convention, League of American Municipalities, 1899. 8vo, 148 pp. Paper. 20

——. "Municipal Ownership: The Proper Attitude of the Law Thereto." Lynch, William A. Public Policy 2:152 (March 10, 1900). 21

——. "Municipal Ownership of Quasi-Public Works." Foote, Allen R. Paper read before the Taxpayers' Assoc. of Baltimore, April 28, 1891. Pamphlet, 23 pp. 22

——. "Municipal Ownership of Quasi-Public Works." Foote, Allen R. Washington, D. C., Ramsey & Bisbee, 1891. Pamphlet, 14 pp. 23

——. "Municipal Ownership versus the Taxpayer." Lake, Edward N. Elec. Engng. 11:124 (March 1, 1898). 24

——. "Municipal Proprietorship." Mason, August Lynch. Arena 19:43 (Jan. 1898), Mun. Rec. & Ad. 2:160 (Jan. 15, 1898). 25

——. "Municipal Public Service Industries." Foote, Allen Ripley. Chicago, The Other Side Pub. Co., 1899. 12mo, 352 pp. Cl. $1. 26

——. Municipalization of Public Services. "La Municipalizzazione dei Servizi Publici." Portalupi, Massimo. Torino, "Germinal," 1900. 12mo, 47 pp. Paper, 50 centimes. 27

Municipal Control—*Continued.*

—— Municipalization of Public Services. "La Municipalisation du Services Publics." Veber, Adrien. R. Municipale 3:2073 (April 28, 1900). 28

——. "Necessity of Municipal Ownership." Grout, Edward M. City Govt. 2:42 (Feb. 1897). 29

——. "New Municipal Era, A." (Editorial). Self Cult. 9:475 (June, 1899). 30

——. "Northwestern Electrical Association, Report of a Special Committee of the, on Municipal Ownership." Doherty, H. L. and E. Coleman. Electricity (N. Y.) Jan. 27, 1897. 31

——. "Objections to Municipal Ownership of Public Works." Smith, T. Carpenter. Engng. M. 14:781 (Feb. 1898). 32

——. "Permanence in Management, Municipal Ownership and." (Editorial). Mun. Engng. 13:357 (Dec. 1897). 33

——. Pingree, Gov., on Municipal Ownership. "Gov. Pingree Replies to Mr. Yerkes." Public Improvements 2:244 (April 2, 1900). 34

——. "A Tale by Governer Pingree." Mun. Ownership 1:16 (June, 1900). 35

——. "Problem of Municipal Ownership, The." Gemünder, Martin A. City Govt. 7:61 (Sept. 1899), Other Side 1:150 (Sept. 30, 1899), Public Improvements 1:244 (Oct. 1, 1899), Am. Gas Light J. 71:573 (Oct. 9, 1899), Am. Gas Light J. 71:609 (Oct. 16, 1899), Prog. Age 17:455 (Oct. 16, 1899). Pp. 71-78 Proc. of the Third Annual Convention of the League of American Municipalities, 1899. 8vo, 138 pp. Paper. 36

——. "Public Ownership." Pp. 17-254 "The City for the People or the Municipalization of the City Government and of Local Franchises." Parsons, Frank. Philadelphia, C. F. Taylor, 1900. 8vo, 597 pp. Cloth, $1. 37

——. "Public Ownership of Telegraphs, Tramways. Gas Works." A Discussion. (With short testimonies from twenty foreign and American cities). Shaw, Albert, J. Laurence Laughlin, Edwin R. A. Seligman, E. W. Bemis, Lee Meriwether, James Paton and William Epps. Independent 49:569 (May 6, 1897). 38

——. "Public Service Companies and City Governments." Gladden, Washington. Outlook 66:502 (Oct. 27, 1900). 39

——. "Social Conscience, Public Ownership and the." Cutting, R. Fulton. Mun. Aff. 4:3 (March, 1900), Cal. Mun. 2:143 (June, 1900). 40

——. Socialism, Municipal. (See under Socialism below).

——. "Successful Substitute for Municipal Ownership, A." Potts, Alfred F. Mun. Engng. 14:181 (April, 1898), Am. R. of Rs. 20:576 (Nov. 1899). 41

——. Trading, Municipal. (See under Trading below).

——. "Trend in American Cities, The." Martin, J. W. Contemp. 76:856 (Dec. 1899). 42

——. "Weaknesses of Municipal Ownership, The." (Editorial). Elec. Eng. 24:302 (Sept. 30, 1897). 43

——. "Why Municipal Industries are not Efficient." Public Policy 2:68 (Feb. 3, 1900).

"Municipal Problems." Pingree, H. S. City Govt. 8:89 (April, 1900). 44

"Municipal Utopias." Spec. 64:364 (1890).

Our Daily Bread. "Panem Nostrum Quotidianum." Garibotti, Giuseppe. Critica Sociale 10:156 (May 16, 1900). 45

Pawnshops, Municipal. (See under **Pawnshops, Municipal**).

"Political Wrecking of Business Enterprises." Coler, Bird S. Munsey's 23:277 (May, 1900). 46

Private Ownership, Private vs. Municipal Ownership. "Corporate Ownership." Hersh, Grier. City Govt. 8:164 (June, 1900). 47

——. "Honesty in the Management of Corporations." (Comparison of Public and Private Corporations). Engng. News Nov. 12, 1896. 48

——. "The Investigation of Municipal and Private Distribution of Water, Gas and Electricity conducted by the Different Bureaus of Statistics of Labor in the United States." (Discussion before the American Economic Association, Cleveland, Ohio. Dec. 1897). Carroll D. Wright, Elroy M. Avery, and John H. Gray. Economic Studies 3:57 (Feb. 1898). 49

——. "Municipal and Business Corruption." Coler, Bird S. Ind. 52:662 (March 15, 1900). 50

——. Municipal vs. Private Ownership. Brown, Charles Carroll. Mun. Engng. 17:195 (Oct. 1899); MacVicar, John. City Govt. 3:114 (Oct. 1897), Mun. Owner-

Municipal Control—*Continued.*

ship 1:5 (June, 1900); Smith, H. T. Our Day 19:507 (Sept. 1900); Tooke, C. W. Mun. Engng. 17:126 (Sept. 1899), Other Side 1:148 (Sept. 30, 1899); anon. Ry. World 7:298 (Sept. 1898). 51

——. "Municipalities vs. Private Corporations." Francisco, M. J. Rutland, Vt., M. J. Francisco & Son, 1900. 8vo, 172 pp. Paper, 50c. 52

——. "Private Ownership of Franchises." Yerkes, Charles T. Pub. Imp. 2:193 (March 1, 1900), Arena 1:96 (June, 1900). 53

"Problems of To-day." Ely, R. T. New York, Thos. Y. Crowell & Co., 1890. 296 pp. $1.25. (Chapters XX and XXI, on Water, Gas, Electric Railways and Lighting). 54

"Profits, The Allocation of Municipal." Wilson, C. H. Mun. J. 9:847 Oct. 26, 1900). 55

——. "Methods of Determining the economic productivity of municipal enterprises." Willcox, Walter F. Am. J. Sociol. 2:378 (1896). 56

——. Municipal Enterprises and Profits. "Imprese Municipali e Profitto." Labriola, Arturo. Critica Sociale 10:349 (Nov. 16, 1900). 57

——. "Ought Municipal Enterprises to be Allowed to Yield a Profit?" Cannan, Edwin. Econ. J. 9:1 (March, 1899). 58

——. "Ancora il Profitto nelle Imprese Municipali." Negro, Luigi. Critica Sociale 10:377 (Dec. 16, 1900). 59

——. "Il Regime Finanziario delle Imprese Municipali; Principii generali; Le Imprese Industriali Municipali debbono dare un Profitto." Critica Sociale 10:219 (July 16, 1900). 60

——. "Sul Socialismo Municipale: Le Imprese Municipali debbono dare un Profitto?" Labriola, Arturo. Critica Sociale 10:170 (June, 1900). 61

"Proposition to Abolish Municipalities in the Interests of Private Corporations." New Nation 2:274 1892). 62

"Public Prejudice against Corporations, How to Obviate." Hendricks, Geo. B. St. Ry. Rev. 7:245 (April 15, 1897). 63

"Right to Lease Public Works, The." Engng. Rec. 37:511 (May 14, 1898). 64

Socialism, Municipal. Municipal Collectivism. Bouët, H. J. Economistes 43:209 (Aug. 15, 1900); Bourdeau, J. R. d. Deux Mondes 160:180 (July, 1900); De Land, Fred. Elec. Engng. 11:53 (Feb. 1, 1898), Elec. Eng. 25:155 (Feb. 10, 1898), Prog. Age 16:128 (March 15, 1898); Saloma, G. Ricca. Nuova, Ant. (Nov. 16, 1897); Veber, Adrien. R. Municipale 3: 1881 (Feb. 3, 1900); anon. Gunton's 16:190 (March, 1899); Other Side 1:65 (Aug. 12, 1899). 65

——. Application of Collectivism. "L'Application du Systéme Collectiviste." Rev. Soc. 28:188, 341, 692 (Aug. Sept. Dec. 1898). 66

——. "Bibliographie des Socialismus und Communismus." Stammhammer, Josef. Jena, Gustav Fischer, 1893. 8vo, 303 pp. 10m. 67

——. "Europe, Municipal Socialism in." Fiamingo, G. J. Pol. Econ. 6:396 (June, 1898). 68

——. Finance, Socialism and Local. "Il Socialismo e i Bilanci Comunali." Bonomi, Ivanoe. Critica Sociale 10:365 (Dec. 1, 1900). 69

——. "I Criteri 'Socialisti' per i Bilanci Comunali." Leone, Enrico. Critica Sociale 10:314 (Oct. 16, 1900). 70

——. "Sul Socialismo Municipale: La Riforma Fiscale." Labriola, Arturo. Critica Sociale 10:154 (May 16, 1900). 71

——. Foreign Countries, Municipal Socialism in. "La Socialisme Municipale à l'Etranger." Veber, Adrien. R. Municipale 3:1996 (March 24, 1900). 72

——. "Letters from New America; or an Attempt at Practical Socialism." Persinger, Clark Edmund. Chicago, Charles H. Kerr & Co., 1900. 12mo, 89 pp. Cloth, 50c. 73

——. "Municipal Socialism." Crofts, W. C. Reprinted from "The Liberty Annual, 1892," London. Published by the Liberty and Property Defense League, 1892. 74

——. "Progress of Municipal Socialism since 1893." Ely, Richard T., and Urdahl, Thomas K. Chaut. 30:186 (Nov. 1899). 75

——. "Socialism, Democracy and Municipal Government." Real Estate Rec. & Guide Aug. 20, 1892, p. 235. 76

——. "Socialism and a Municipal Commonwealth." Barnes, L. C. Am. M. Civics 6:260 (1895). 77

Municipal Control—*Continued.*

——. "The Tendency of Municipal Socialism." Maltbie, Milo Roy. Other Side 1:61 (Aug. 12, 1899). 78

"Status of the Public Service Corporation Question, The." Garfield, Harry A. Pp. 207-215 in "Proceedings of the Columbus Conference for Good City Government." Philadelphia, National Municipal League, 1899. 8vo, 275 pp. Cloth $1. 79

Trading, Municipal. Avebury, Lord. Contemp. 78:28 (July, 1900); Bond, Walter. Fortn. 66:669 (Oct. 1899); Donald, Robert. Contemp. 78:227 (Aug. 1900); Harrison, John. Econ. J. 10:251 (June, 1900); Priestman, Arthur. Mun. J. 9:760 (Sept. 28, 1900), Surveyor 18:404 (Oct. 5, 1900); anon. Ty. & Ry. W. 9:409 (Aug. 9, 1900); Char. Or. R. 8:257 (Oct. 1900); Ed. R. 192:405 (Oct. 1900). 80

——. "American View of Municipal Trading." Robinson, J. R. Mun. J. & London 8:1218 (Nov. 10, 1899). 81

——. "The 'Edinburgh Review' on Municipal Trading." J. Gas Light 76:1324 (Nov. 27, 1900). 82

——. "Municipal Trading and Profits." Donald, Robert. Mun. J. & London 8:1057 (Sept. 22, 1899). Econ. J. 9:378 (Sept. 1899). (See also under Profits). 83

"Treatment of Municipalities, The." Britton, John A. Am. Gas Light J. 71:289 (Aug. 21, 1899). 84

——. "Triumph of Municipal Trading." Mun. J. & London 8:325 (March 17, 1899). 85

Uniform Accounting. (See under Accounting above).

"Validity of Contracts held by Quasi-Municipal Corporations." Thompson, S. D. Am. Law R. 26:675 1892). 86

"Vested Wrongs." Porter, Robert P. Public Improvements 1:218 (Oct. 1, 1899), Other Side 1:174 (Oct. 14, 1899), Prog. Age 17:450 (Oct. 6, 1899), City Govt. 7:118 (Nov. 1899), St. Ry. R. 9:746 (Nov. 15, 1899). Pp. 63-71 in "Proceedings of the Third Annual Convention of the League of American Municipalities, 1899." 8vo, 148 pp. Paper. 87

"Waste in Competition in Public Service Functions, The." Bourke, John Walton. Prog. Age 15:408 (Sept. 15, 1897). 88

"What Shall the City Do?" Gunton's 16:350 (May, 1899). 89

LIGHTING—GENERAL.

"Bookkeeping for Public Lighting Companies, Best Methods of." Clough, John Lyle. Mun. Engng. 18:237 (April, 1900). 90

"Control, Difficulties of, as Illustrated in the History of Gas Companies." Gray, John H. Ann. Am. Acad. Pol. Sci. May, 1900, Supp. p. 31. 91

"Control of Private Lighting Companies." Real Estate R. & G. May 14, 1892, p. 764. 92

"Legitimate Ways of Getting Cheaper City Light." (Editorial). Elec. Eng. 26:434 (Nov. 3, 1898).

"Municipal Lighting." Parsons, Frank. Arena 15:95 (1896); Bean, W. Worth. Elec. Eng. 23:655 (June 16, 1897), St. Ry. R. 7:423 (July 15, 1897), Prog. Age 15:302 (July 1, 1897); Bemis, Edward W. Outlook 62:884 (Aug. 19, 1899); Francisco, M. J. City Govt. 4:131 (April, 1898). 93

——. "Problem of Municipal Lighting." Hurd, W. T. Proceedings of the Convention of the League of Wisconsin Municipalities, Bulletin No. 3, p. 34, June 26-27, 1899. 94

——. "Public Lighting in Relation to Public Ownership and Operation." Dow, Alexander. Am. Gas Light J. 68:1018 (June 27, 1898), Elec. Eng. 25:707 (June 23, 1898), Elec. Rev. 33:9 (July 6, 1898), 33:28 (July 13, 1898), Elec. World 31:738 (June 18, 1898), Prog. Age 16:328 (July 1, 1898), 16:346 (July 15, 1898). Discussed by Atkinson, H. M. Elec. Eng. 25:748 (June 30, 1898). 95

"Municipal Ownership of Gas and Electric Lighting Plants." Foote, Allen R. Columbus, O., Ohio Gas Light Assoc., 1890. Paper, 7 pp. 96

——. "A report on Municipal Lighting to the City Council of Des Moines, Ia." (Favors Municipal Lighting). MacVicar, John. City Govt. 1:146 (Dec. 1896). 97

——. "Municipal or Company Lighting." Mun. J. 9:960 (Dec. 7, 1900). 98

——. "Municipal Ownership of Water, Gas and Electric Light Plants." Discussion by Walter F. Wilcox, Edward W. Bemis, M. N. Baker, Osborn Howes, James W. Latta, John R. Commons, F. E. Barker, John S. Clark and Lee Meriwether. Proceedings of the National Association of Officials of Bureaus of Labor Statis-

Municipal Control—*Continued.*

tics in the United States. Albany, N. Y. June 23-25, 1896. pp. 75-128. 99

——. "Objections to Municipal Ownership of Lighting Plants." Mun. Engng. 16:321 (May, 1899). 100

——. "Public Ownership of Lighting Plant." Warner, George E. City Govt. 6:50 (March, 1899). 1

——. "Report on Public Lighting." Matthews, Nathan, Jr. City Rec. 1:501 (Sept. 1, 1898). 2

——. "The Municipal Ownership of Gas and Electric Plants." Persse, T. B. Prog. Age July 1, 1896. Criticised in Prog. Age July 15, 1896. 3

"Municipalities Owning Gas and Electric Works." Maltbie, Milo R. Prog. Age 17:216 (May 15, 1899). 4

"State and Lighting Corporations, The." Allen, Walter S. An. Am. Acad. Pol. Sci. 2:707 (1892). 5

"Street Lighting, Private vs. Municipal Plant for." Foster, Horatio A. Elec. Eng. March 29, 1893, p. 309. 6

——. "Street Lighting by Contract and by Municipal Ownership." MacVicar, John. Elec. Eng. 24:329 (Oct. 7, 1897), Prog. Age 15:451 (Oct. 15, 1897). 7

"The Solution of One Problem of Municipal Lighting." Hurd, W. T. Mun. Engng. 19:329 (Nov. 1900). 8

"Uniform Accounting for Gas and Electric Lighting Companies." Cahoon, James Blake. Mun. Engng. 18:383 (June, 1900). 9

LIGHTING—ELECTRICITY.

"A Co-operative City Electric Lighting Plant." Elec. Rev. 32:58 (Jan. 26, 1898). 10

"Circuits, Street Franchises for Electric." Adams, Alton D. Elec. W. & E. 36:769 (Nov. 17, 1900). 11

"Concentrating the Control of all Municipal Electric Interests under one Head, The Advisability of." Mead, Morris W. Elec. R. 35:154 (Sept. 6, 1899), 35:173 (Sept. 13, 1899), Mun. Engng. 17:368 (Dec. 1899). 12

Cost of Public Electric Lighting, Statistics of." Rosewater, Victor. Am. Stat. Assoc. 3:293 (1893); Separate Pamphlets Nos. 21, 22. $1. 13

"Electric Light Asociation, National Convention at Chicago." (Discussion of Municipal Ownership). Elec. World, March 2, 1889. 14

"Municipal Control, Ownership or Operation of Municipal Franchises, with Special References to Electric Lighting." Bowker, R. R. Mun. Affairs 1:605 (Dec. 1897). (Reprinted from Municipal Affairs) Elec. Eng. 25:27 (Jan. 6, 1898), 25:65 (Jan. 13, 1898), 25:89 (Jan. 20, 1898), 25:104 (Jan. 27, 1898), 25:130 (Feb. 3, 1898), 25:153 (Feb. 10, 1898), 25:182 (Feb. 17, 1898), Elec. Rev. 32:26 (Jan. 12, 1898); et seq. 15

——. "An Ideal Municipal Electric Plant." Adams, Alton D. Mun. Engng. 17:327 (Dec. 1899). 16

——. "Die Elektrische Beleuchtung im Verhältniss zur Stadtverwaltung." Schrader, W. Madgeburg, 1889. 17

——. "Electric Power Companies and their Relation to Municipalities." Lang, A. E. Elec. Eng. 26:645 (Dec. 29, 1898), Mun. & Ry. Rec. 5:15 (July 15, 1899). 18

——. "La Municipalizzazione dei Servizi Elettrici." L'Elettricita 18:604 (Sept. 23, 1899). 19

——. "Municipal versus Company Electricity." Mun. J. & London 8:1082 (Sept. 29, 1899).

——. "Municipal Electric Lighting." Commons, John R. Mun. Aff. 1:631 (Dec. 1897); reprinted in Elec. Eng. 25:230, 264, 296, 319, 348, 373, 426, 464 (March 3, 10, 17, 24, 31, April 7, 21, 28, 1898); also as Ch. II, pp. 55-182 in "Municipal Monopolies," see 160-86; criticism by Foster, Horatio A. Elec. Eng. 25:510 (May 12, 1898). 20

——. "Municipal Electric Light Plants." Anon. City Govt. 4:57 (Feb. 1898); Bemis, E. W. Prog. Age 16:408 (Sept. 1, 1898). 21

——. "Municipal Electricity." London 6:837 (Oct. 21, 1897). 22

——. "Municipal Ownership of Electric Light Plants." Britton, John A. Am. Gas Light J. Jan. 20, 1896; Francisco, M. J. Am. Gas Light J. 67:7 (July 5, 1897); anon. Engng. News 39:387 (June 16, 1898). 23

——. "Municipal Ownership of Electric Light Plants: its fallacy with legal and editorial opinions, tables and costs of light." Francisco, M. J. Rutland, Vt.

Municipal Control—*Continued.*

Carruthers & Thomas, prs., 1893. 104 pp. 24

——. "Municipal Ownership of Electric Light Stations." Elec. World 31:210 (Feb. 12, 1898). 25

——. "Objections to Municipal Ownerships of Electric Plants." Smith, T. Carpenter. Engng. M. 14:780 (Feb. 1898). 26

——. "Report to the Special Investigating Committee on Commercial Electric Lighting, South Norwalk, Conn." (Analysis of Reports from 60 cities owning Electric Lighting Plants. The same number of the Electrical Engineer contains short articles on the experience of 24 other cities in Municipal Electric Lighting.) Winchester, A. E. Elec. Eng. 23:177 (Feb. 17, 1897). 27

——. "Remonstrance to the Municipal Control of Electric Lighting before the Committee on Manufactures of the Massachusetts Legislature." Evans, Forest L. Boston, Printed by Rockwell & Churchill, 1891. 28

——. "Argument in Remonstrance to the above, before the Committee on Manufactures of the Massachusetts Legislature." Collins, Patrick A. Boston, Wright and Potter, prs., 1891. 31 pp. 29

——. "Argument in Favor of Municipal Ownership before the Committee on Manufactures of the Massachusetts Legislature." Crowley, Daniel N. Salem, Mass., The Salem Press Publishing Co., 1891. 33 pp. 30

——. "Argument in Behalf of the Town of Peabody before the Committee on Manufactures of the Massachusetts Legislature." Burdette, Everett W. Salem, Mass., The Salem Press Publishing Co., 1891. 31

——. "The Commercial and Business Aspects of Municipal Electricity Supply." Gibbings, Alfred H. Bradford, Macmillan Co., 1899. 4to, 270 pp. Cl. $4. 32

"Reports, Municipal Lighting." Thayer, George S. Elec. Eng. 23:313 (March 24, 1897). 33

——. "The Latest Electric Light Reports." Bemis, Edward W. Ch. III, pp. 183-285, in "Municipal Monopolies," see 160-86. 34

"Statistics, Municipal Electric Light." City Govt. 5:145 (Oct. 1898). 35

"Stockholder's Standard, Municipal Lighting Ownership from the." Fitzgerald, W. H. Elec. Eng. 24:601 (Dec. 23, 1897). 36

"Validity of Electric Light Comparisons." Perrine, F. A. C. Appendix to Ch. III, pp. 286-298, in "Municipal Monopolies," see 160-86. 37

"Waterworks and Electric Light Plants, Municipal Ownership of Combined." Fischer, Louis E. Public Policy 2:228 (April 14, 1900). 38

——. "A Municipal Water and Light Plant." Pierce, F. G. City Govt. 3:121 (Oct. 1897), Prog. Age 15:538 (Nov. 15, 1897). 39

"Why Some Municipal Electric Plants do not Pay Better." Shepardson, George D. Elec. R. 37:37 (July 11, 1900), 37:52 (July 18, 1900), Mun. Engng. 19:103 (Aug. 1900), St. Ry. R. 10:455 (Aug. 15, 1900). 40

LIGHTING—GAS.

"Control of Gas Works, Municipal." Keeler, Bronson C. Forum 8:286 (1889). 41

"Gas." Bemis, Edward W. Ch. VIII, pp. 587-630, in "Municipal Monopolies," see 160-86. 42

——. "Gas Supply and the Modern Municipality, The." James, E. J. Am. Econ. Assoc. Pubs. Vol. I, 1886. Separate 75 cts. 43

——. "Is the Municipalization of Gas Undertakings Advantageous?" Lees, Herbert. Gas World (London) June 19, 1897. 44

——. "Monopolies of Municipal Service, the Gas Dragon." Hildreth, Arthur. Nationalist 1:28 (1889). 45

——. "Municipal Control of Street Car, Water and Gas Plants." Canadian Eng. Feb. 1896. 46

——. "Municipal Gas not a Failure." Dodge, W. C. Elec. Engin. 23:708 (June 23, 1897). 47

——. "Municipal Gas Works." Bemis, E. W. Chaut. 16:15 (1892). 48

——. "Municipalities vs. Gas Companies." Hickenlooper, Andrew. Am. Gas Lgt. Jour. June, 1896. 49

——. "Public Gas Supply." Adams, Alton D. Mun. Engng. 19:382 (Dec. 1900). 50

——. "Recent Results in Municipal Gas Making." Bemis, E. W. R. of Rs. 7:61 (1893). 51

"Price of Gas, Governmental Control of the." Forstall, Alfred E. Am. Gas Light

Municipal Control—*Continued.*

J. 73:686 (Oct. 29, 1900), J. Gas Light. 76:1211 (Nov. 15, 1900), Prog. Age 16:520 (Dec. 1, 1900). 52

"Relation of the Gas Supply to the Public, The." Gray, John H. Mun. Aff. 2:183 (June, 1898). 53

——. "Proper Relation of the Gas Supply and the City Treasury." Armstrong, C. M. Taxpayers' Assoc. of Baltimore. Addresses 1889, p. 299. 54

"State Regulation of Corporations." (With special reference to gas companies.) Christian, Geo. H. Prog. Age 15:74 (Feb. 15, 1897). 55

MILK SUPPLY.

"Municipal Control of Milk." Mun. J. & London 8:998 (Sept. 8, 1899). 56

"Municipal Control of the Milk Supply." (Editorial.) San. Rec. 23:199 (March 10, 1899).

"Municipal Milkshops." Mun. J. & London 8:1096 (Oct. 6, 1899).

"Public Regulation of the Milk Supply." Wende, Ernest. City Govt. 8:48 (Feb. 1900). 57

"Purity of the Milk Supply." Charities, Vol. 3, No. 12, p. 2 (Aug. 19, 1899).

TELEPHONES.

"Municipal Telephones." Mun. Rec. & Ad. 3:791 (Sept. 15, 1898); Bennett, Alfred R. Mun. J. 9:45 (Jan. 19, 1900). 58

"Telephones: Monopoly or Municipality." Mun. J. & London 8:135 (Feb. 2, 1899). 59

"The Telephone." Parsons, Frank. Ch. IV, pp. 299-364, in "Municipal Monopolies," see 160-86. 60

"The Municipalization of the Telephone." Mountain, A. B. Elec. Eng. (London) June 23, 1899). 61

TRANSIT FACILITIES.

"Compensation Should Cities Receive for Street Railway Franchises, What." Phelan, James D. City Govt. 5:65 (Aug. 1898). 62

"Control, Street Railway." Pingree, Hazen S. City Govt. 2:35 (Feb. 1897). 63

"Elevated Road Franchises. Mostly Fools." Hampden, Guy. New Nation 2:712 (1892). 64

"Fares, Street Railway Franchises and." Gager, Edwin B. St. Ry. J. 15:401 (June, 1899). 65

"Foreign Cities and their Franchise Requirements, Street Railways in." Engng. News 42:359 (Nov. 30, 1899). 66

"Franchises, Street Railway." Meriwether, Lee. Part I, Eighteenth Annual Report of the Bureau of Labor Statistics, State of Missouri, 1896. 67

"Labor's Interest in Public Street Cars." Parsons, Frank. New Time 1:219 (Oct. 1897). 68

Law. "The Juridic Side of the Municipalization of Tramways." Beynon-Harris, George. Elec. Eng. (Lond.) 21:50 (Jan. 14, 1898). 69

"Length of Leases, Tramway Municipalization and." Ry. World 7:122 (April 7, 1898). 70

——. "Street Railway Franchises." Maltbie, Milo Roy. Pp. 73-76 in "Report of the Street Railway Commission of the City Council of the City of Chicago." Chicago, City Council, 1900. 8vo, 136 pp. Paper. 71

"Local Consent for Street Railways." Art. 3, Sec. 18, New York State Constitution of 1894.

"Management, Municipal Tramway." Ry. World 7:18 (Jan. 1898).

"Model Street Railway Franchise." City Govt. 7:20 (July, 1899).

Municipal Ownership of Street Railways. Parsons, Frank. Boston, Mass., Published by the Fabian Educational Co., n. d. 16 pp., Boston, Arena Pub. Co., 1896, 10 cts., New Time 1:84 (Aug. 1897); Pingree, Hazen S. Munsey's 22:220 (Nov. 1899); Richardson, Charles. p. 198, Proc. Third Natl. Conf. for Good City Govt., 1896, see 6-18c; Vreeland, H. H. Elec. World 30:332 (Sept. 18, 1897). 72

——. "More Municipal Tramways." London 7:65 (Feb. 3, 1898). 73

——. "Municipal Construction and Ownership of Works for Public Accommodation." (Rapid Transit.) Engng. Rec. Aug. 22, 1896. 74

——. "Municipal Control of Street Car, Water and Gas Plants." Canadian Eng. Feb. 1896.

Municipal Control—*Continued.*

——. "Municipal Ownership and Operation of Street Railways." Sullivan, P. F. Elec. Eng. 24:376 (Oct. 21, 1897), 24:414 (Oct. 28, 1897), 24:439 (Nov. 4, 1897), Elec. R. 31:244 (Nov. 17, 1897), Elec. World 30:487 (Oct. 23, 1897), Railroad Gaz. 29:765 (Oct. 29, 1897), St. Ry. J. 13:751 (Nov. 1897), St. Ry. R. 7:718 (Nov. 15, 1897); Vreeland, H. H. Elec. Rev. 31:155 (Sept. 29, 1897), St. Ry. J. 13:643 (Oct. 1897); Warner, John DeWitt, and Higgins, Edward E. Mun. Aff. 1:421 (Sept. 1897). 75

——. "Municipal Street Railways." (Editorial.) Elec. Eng. 24:278 (Sept. 23, 1897). 76

——. "Municipalization of Street Railways." (Twenty-ninth Annual Joint Debate of the University of Wisconsin, December 16, 1898.) Kies, W. S., editor. Madison, Wis., Daily Cardinal Publishing Co., 1899. 8vo, 97 pp. Paper, 35 cts. See also Mun. Rec. & Ad. 3:722 (Aug. 15, 1898). 77

——. "Municipalization of Tramways." London, Fabian Society, 1897. Fabian Tract No. 77. 15 pp. 1d. 78

——. "Report of the Special Committee appointed to investigate the Relation between Cities and Towns and Street Railway Companies." (Besides the report of the Committee, it contains report of the Secretary, Walter S. Allen, "Abstracts of the Statutes of the various States relating to Franchises and Methods of Taxation." "Conditions in American Cities," "European Conditions," "Municipal Ownership and Operation of Street Railways in England" by Ropert P. Porter, "Extract from Rapid Transit and Tax Commissions' Reports in Relation to the Readjustment of the Corporation Tax," and tables showing effect of corporation and commutation taxes, etc., in Massachusetts.) Boston, February, 1898, 8vo, 296 pp. Reviewed in Engng. News 39:225 (April 7, 1898), Elec. Eng. 25:152 (Feb. 10, 1898), St. Ry. R. 8:117 (Feb. 15, 1898), Railroad Gaz. 30:122 (Feb. 18, 1898). 79

——. "Sollen Kommunen Strassenbahnen Bauen und Betreiben." Deutsche Zeitschr. f. Elektrotechnik July 15, 1897. 80

——. "Street Railroads and Municipal Corporations." Railroad Gaz. 29:868 (Dec. 10, 1897). 81

——. "Street Railways." Parsons, Frank. New Time 1:138, 1:281 (Nov. 1897); Bemis, Edward W. Ch. VII, pp. 505-586 in "Municipal Monopolies," see 160-86. 82

——. "Street Railways vs. Municipalities." (Editorial.) St. Ry. Jour. 13:299 (May, 1897). 83

——. "The Case for Municipal Operation of Street Railways." (Editorial.) St. Ry. J. 13:852 (Dec. 1897).

——. "The Street Railway Problem." (Editorial.) Ind. 50:13 (May 19, 1898).

Paving, Street Railways and. (See Street Railways under **Pavements.**)

"Power Companies and their Relation to Municipalities, Electric." Lang, Albion E. St. Ry. Rev. 8:336 (May 15, 1898). 84

"Pingreeism, Reflections Concerning." (Editorial.) St. Ry. J. 13:104 (Feb. 1897).

"Public Ways, Use of, by Private Corporations." Powers, Samuel L. Arena 5:681 (1892); Schindler, Solomon. Arena 5:687 (1892). 85

——. "Conflicting Rights of Street Railways and Municipalities in the Highways." Hodge, J. Aspinwall. St. Ry. Jour. 13:296 (May, 1897). 86

"Regulation of Cost and Quality of Service as Illustrated by Street Railway Companies." Speirs, F. W. Ann. Am. Acad. Pol. Sci. May, 1900, Supp. p. 61. 87

Relation of the Public to the Street Railways Boyle, John W. St. Ry. R. 9:266 (April 15, 1899); Curtis, C. E. Yale R. 6:17 (May, 1897); Lardner, James F. St. Ry. R. 9:39 (Jan. 15, 1899); Little, J. T., Jr. St. Ry. R. 8:716 (Oct. 15, 1898), Elec. Rev. 33:266 (Oct. 26, 1898); Moore, Clarence S. Outlook 62:665 (July 22, 1899); Parsons, Frank. New Time 2:319 (May, 1898); Mun. Rec. & Ad. 3:724 (Aug. 15, 1898). 88

——. "Relations of Railways to Municipalities." Jones, Dwight A. Engng. M. 8:813 (1895). 89

——. "Relations of Street Railways and Municipal Corporations." Argument before the Special Committee Appointed by the Governor (Mass) to investigate this subject. Reprinted in St. Ry. Rev. 8:5 (Jan. 15, 1898.) Burdett, Everett W. Boston, 1897. Pamphlet, 119 pp. 90

"Revenue from Street Railroads, Municipal." Dewey, Davis R. Am. Econ. Assoc. 2:551 (1888). 91

"Service Required by the Municipality, Street Railway." St. Ry. R. 7:567 (Sept. 15, 1897). 92

"Subways, The Municipal Ownership of Electric." (Practice of Baltimore and St.

Municipal Control—*Continued.*

Louis, with general considerations.) Engng. News 37:57 (Jan. 28, 1897). 93
"Urban Transit, Public Control of." Baxter, Sylvester. Cosmopol. 18:54 (1894). 94
"Value of Street Railway Franchises, Financial." Stevens, E. R. Outlook 51:600 (1895). 95

WATER WORKS.

"A Form of Municipal Control of Water Works." Mun. Engng. 14:275 (May, 1898). 96
"Combined Water Works and Electric Light Plants, Municipal Ownership of." Fischer, Louis E. Public Policy 2:228 (April 14, 1900), Mun. Engng. 18:147 (March, 1900). 97
——. "A Municipal Water and Light Plant." Pierce, F. G. City Govt. 3:121 (Oct. 1897), Prog. Age 15:538 (Nov. 15, 1897). 98
"Experiences of Cities with Municipal Water Works." Sweet, J. S. Cal. Mun. 1:211 (Feb. 1900). 99
"Financial Statement of Municipal Water Works, Examination of." Davis, F. A. W. Mun. Engng. 15:10 (July, 1898). 100
"Franchises, Water Works." (Statistics of one-third of the companies in the United States, with discussion.) Engng. News Jan. 9, 1892, p. 37. 1
——. "Value of Water Works Franchises, The." Wallace, J. M. Mun. Engng. 17:146 (Sept. 1899). 2
"Municipal Ownership of Water Works." Heim, John B. Mun. Engng. 17:87 (Aug. 1899). 3
——. "About a Municipal Water Plant." Caulfield, John. City Govt. 3:131 (Oct. 1897). 4
——. "A Few Considerations of Municipal Water Supply." Kuichling, E. Trans. of Assn. of Civ. Engs. of Cornell Univ., 1898. 5
——. "Municipal Ownership of Water, Gas and Electric Light Plants," see 160-86. 6
——. "Municipal Control of Street Car, Water and Gas Plants." Canadian Engineer Feb. 1896.
——. "Municipal vs. Private Water Plants." City Govt. 4:90 (March, 1898). 7
——. "Municipal Water." Fabian Tract No. 81 (Feb. 1898). London, Fabian Society, 1898. 8
——. "Water Supplies, Municipal." Hill, William R. Pp. 110-111 in "Pro. of the 3d Annual Conv. of the League of Am. Municipalities, 1899." 8vo, 148 pp. Paper. 9
——. "Municipal Water Supply." Heim, John B. Proc. of the Conv. of the League of Wisconsin Municipalities, Bulletin No. 3, p. 25, June 26-27, 1899, Pub. Imp. 1:6 (May 1, 1899). 10
——. "Municipal Water Works." McGuire, James K. City Govt. 5:57 (Aug. 1898). 11
——. "Nation's Water Supply and Its Effective Control." Jones, C. E. J. Gas Light 75:541 (Feb. 27, 1900). 12
——. "Public Control of the Water Works." City & State 6:211 (March 30, 1899). 13
——. "Public and Private Ownership of Water Works." Baker, M. N. Outlook 59:76 (May 7, 1898). 14
——. "Water Works." Baker, M. N. Ch. I, pp. 3-54, in "Municipal Monopolies," see 160-86. 15
"Ownership of Water Works in the United States and Canada." Engng. News Jan. 23, 1892, p. 83. 16
"Particulars in which Municipal Officers should protect the Municipal Corporation in granting Water Works Franchises to Private Companies." Tubbs, J. Nelson. Engng. News May 19, 1892, p. 518; Proc. Am. Water Works Assoc., 1892, p. 36. 17
"Politics, Taking Water Works out of." Mun. Engng. 13:307 (Nov. 1897). 18
"Private Water Companies, their Relation to Municipal Authorities and the Public." Dunham, H. F. San. Eng. July 30, 1887. 19

Municipal Control, State Boards for. (See under **Home Rule for Cities.**)

"**Municipal Democracy.**" Baxter, Sylvester. Address before Advance Club, Providence, May 9, 1891. Printed by the Club. 20

Municipal Improvements. (See **Engineering.**)

Municipal Insurance. "Assurances Municipales." Veber, Adrien. Rev. Soc. 28:516 (May, 1898). 21

"**Municipal Officials,** National Societies of." (Editorial.) Engng. News 40:113 (Aug. 25, 1898). 22

"**Municipal Patriotism.**" Barrows, John H. A sermon preached at Plymouth Church, Chicago, Nov. 27, 1890. 22 pp. 23

"**Municipal Salaries**" Ardagh, Judge. Mun. World 9:148 (Sept. 1899). 24

Municipal Socialism. (See under **Municipal Control, Municipal Ownership.**)

Municipal Statistics. (See under **Statistics.**)

Municipal Trading. (See under **Municipal Control, Municipal Ownership.**)

"**Museums.**" pp. 53-82, "Methods of Social Reform," by W. Stanley Jevons. London and New York, Macmillan, 1883. 383 pp. $3. 25

Naples.

Finance. "La Finanza del Municipio di Napoli, osservazioni e proposte." Amore, Nic. Napoli, Giannini, 1891. 5 pp. 26

Municipality, The Naples. Turiello, P. Nuova Ant. Feb. 1, 1898. 27

Sanitation. "Die Neubauten des Sanitäts-Vereines in Neapel in den Jahren 1888 und 1889." Meissner, Alois. Allgemeine Bauzeitung 52:86 (1892). 28

Nashville, Tenn.

City Government, General References.

"Appointment of a Receiver for Nashville in 1869." Merriam, Lucius S. Am. Law R. 25:393 (1891). 29

"Experiments in Municipal Government." Colyar, A. S. Southern Bivouac 2:306 30

History, description and statistics of Nashville, Tenn., in 1880. Census. See 1-7. 31

"Municipal Condition of Nashville, Tenn." Lindsley, A. V. S. p. 102, Proc. Third Natl. Conf. for Good City Govt., 1896. See 6-18c. 32

"Municipal Government of Nashville." Kennedy, John L. City Govt. 1:108 (1898). 33

"History of Nashville, Tenn." Thurston, Gates P. See 1-4c. 34

"Water Works of Nashville." Engng. Rec. Oct. 6, 1894. 35

Nebraska.

"Private and Municipal Ownership of Water Works, Electric Light and Power Plants, and Gas Works." (Relates almost exclusively to Nebraska.) Sixth Biennial Report of the Bureau of Labor and Industrial Statistics of Nebraska, 1897-8. pp. 494-572. Lincoln, Neb., 1898. 36

Negaunee, Mich.

"Municipal Electric Lighting Plant at Negaunee, Mich." Anon. Elec. R. 35:187 (Sept. 20, 1899); Other Side 1:245 (Nov. 25, 1900). 37

"**Negro,** Conditions of the, in various cities." (Atlanta, Ga., Nashville, Tenn., Cambridge, Mass. and other cities.) Bulletin of the Department of Labor, No. 10, p. 257 (May, 1897). 38

Neuchâtel, Switz. "Agrandissement de la Ville de Neuchâtel." Eisenb. 10:45. 39

Newark, N. J.

"Consolidation at Newark, N. J. Prog. Age 16:580 (Dec. 15, 1898).

History, description and statistics of Newark, N. J., in 1880. Census. See 1-7. 40

——. "Records of the Town of Newark, New Jersey, from its settlement in 1666, to its incorporation as a city in 1836." Newark, New Jersey, Historical Society, 1864. 8vo, 294 pp. 41

"Police Department of Newark, History of." Newark, Relief Publication Co., 1893. 419 pp.

"Water Supply of Newark, N. J." Herschel, Clemens. J. N. E. Water Works Assoc. 8:18 (1893). 42

——. "Preventing Water Waste in Newark, N. J." Engng. Rec. 40:148 (July 15, 1899). 43

"**New Bedford [Mass.]**, The Further Water Supply of the City of, now being Constructed." Wood, Edmund. Jour. N. E. Water Works Assoc. March, 1897. 44

"**New Brighton, N. Y.**, Garbage Disposal System of." Engng. Rec. March 13, 1897. 45

"**Newburgh, N. Y.**, History of." Skeel, Adalaide. See 1-4b. 46

"**Newburyport [Mass.]** Water Works Litigation, The." Engng. Rec. 42:362 (Oct. 20, 1900). 47

Newcastle, Eng.

City Government. "Some Impressions of Municipal Newcastle." Watson, Aaron. Mun. J. 9:679 (Aug. 31, 1900). 48

History. (See references p. 343 Gross "Bibliography of British Municipal History.") 49

"Slums of Newcastle, The." Wallace, Johnstone. Mun. J. 9:204 (March 16, 1900), 9:224 (March 23, 1900). 50

Transit Facilities. "A Chance for Newcastle." Mun. J. & London 8:105 (Jan. 26, 1899). 51

——. "Cable versus Electric Traction in Newcastle." Ry. World 7:378 (Nov. 1898). 52

——. "Mechanical Power for Newcastle Tramways." Colam, W. N. Ry. World 7:380 (Nov. 1898). 53

——. "Newcastle Tramways." Laws, W. George. Ry. World 8:189 (May 11, 1899). 54

——. "Tramway Question in Newcastle." Ry. World 7:58 (Feb. 1898). 55

New England.

"Direct Legislation in New England." (Town Meetings.) Janes, L. G. (Abstract in Senate Document on Direct Legislation p. 192. See above.) 56

"Germanic Origin of New England Towns." Adams, Herbert B. J. H. Univ. Studies 1:2 (1883). 57

"Origin and Development of Local Self-Government in New England and the United States." Bugbee, J. M. Address before the American Social Science Association, Boston, Jan. 14, 1880. Boston, A. Williams & Co., 1880. 39 pp. 58

"Parks, New England." Garden & F. 4:482, 566, 602 (1891). 59

"Town and County Government as a factor of New England Government." Adams, Herbert B. J. H. Univ. Studies II:10 (1884). 60

Transit Facilities. "Electricity as a Motive Power for the Suburban Railway Service of New England." Short, Sidney H. St. Ry. J. 13:673 (Oct. 1897). 61

"Vital Statistics of the New England States. A Summary for the year 1892; being a Concise Statement of the Marriages, Divorces, Births and Deaths in the six New England States." Compiled under the direction of the Secretaries of the State Boards of Health. 8vo, 2s. 6 d. 62

New Haven, Conn.

"Charities, A Day's Work in New Haven Organized." Preston, S. O. Char. R. 3:159 (1894). 63

"History of New Haven, Conn." Cogswell, Fredrick Hull. See 1-4a. 64

——. "The Republic of New Haven: A History of Municipal Evolution." Levermore, Charles H. Balitmore, J. H. Univ. Press, 1886. $2. 65

——. "Town and City Government of New Haven." Levermore. Charles H. J. H. Univ. Studies IV:10 (1886). 66

History, description and statistics of New Haven, Conn., in 1880. Census. See 1-7. 67

"Law and Order League of Connecticut." Prince, Walter A. Reprinted from the Connecticut Citizen, 1895. 22 pp. 68

"Municipal Condition of New Haven." Fox, George L. pp. 164-174, Proc. of the Louisville Conference for Good City Government, 1897. See 6-18d. 69

"Parks of New Haven, The Public." Blake, Henry T. Park & Cem. 9:159 (Oct. 1899). 70

New Jersey.

Charities. "The State Charities Aid Association of New Jersey." Williamson, Emily E. P. 72 "International Congress," vol. III, 1893, see 43-99. 71

City Government. "An Act Relating to Boroughs (Revision of 1897) in the State of New Jersey; with Notes." Skinner, A. F. Newark, Loney & Sage, 1898. 8vo, 94 pp. $1.50. 72

"Financial Condition of the Several Counties, Cities, Townships, Towns, Boroughs and Villages of the State of New Jersey." 2d part of the Annual Report of the Comptroller of the Treasury of the State of New Jersey. Trenton, Comptroller, issued annually. 73

——. "Franchise Tax Law, Expected Effect of the New Jersey." Black, Charles C. Public Policy 2:338 (June 2, 1900); anon. St. Ry. J. 16:584 (June 16, 1900). 74

Parks. "Saving the Palisades." Parsons, Samuel, Jr. Hrprs. Wkly. 44:176 (Feb. 24, 1900). 75

"Sewage Disposal in New Jersey." Engng. Rec. 41:289 (March 31, 1900). 76

——. "An Important Decision on River Pollution by Sewage in New Jersey." Engng. News 41:158 (March 9, 1899). 77

——. "Commissioners' Report on the Passaic River Pollution." Trenton, N. J., 1899. 8vo, 54 pp. Reviewed in Engng. News 41:157 (March 9, 1899). 78

——. "Sewage Consumption in New Jersey." Phillips, Samuel. Sanitarian 11:300 (April, 1898). 79

——. "Sewage Disposal in the Passaic Valley." Engng. News 42:8 (July 6, 1899). 80

——. "Sewerage Disposal and Stream Pollution in the Lower Passaic Valley, New Jersey." Engng. News 39:129 (Feb. 24, 1898). 81

——. "The New Jersey Sewage Disposal Law." Engng. Rec. 42:102 (Aug. 4, 1900). 82

——. "The Prevention of Water Pollution in New Jersey." Engng. News 43:224 (April 5, 1900). 83

Transit Facilities. "Reports of Cable, Electric and Horse Railroad Companies." Trenton, N. J., State Board of Assessors, issued annually since 1890. 8vo, 68 pp. Pamphlet. 84

"Water Supply, New Jersey Forests and their Relation to." Vermeule, C. C. Engng. Rec. 42:8 (July 7, 1900), Engng. N. 44:58 (July 26, 1900). 85

New Orleans, La.

City Government, General References.

"Municipal Affairs in New Orleans." Janvier, Charles. Pp. 199-217 "Pro. of the Louisville Conference, 1897." See 6-18d. 86

"Municipal Condition of New Orleans." Spencer, Walter B. p. 407, Proc. Second Natl. Conf., 1895. See 6-18b. 87

"Municipal Reform in New Orleans." Walker, Norman. City & State 7:278 (Nov. 2, 1899). 88

"New Orleans, Our Southern Capital." Ralph, Julian. Harpers 86:364 (1893). 89

New Orleans, La.—*Continued.*

"Notes on Municipal Progress in New Oreans." p. 266 Pro. Indianapolis Conf., 1898. See 6-18e. 90

Bridges. "The Proposed Mississippi River Bridge at New Orleans." Eng. News 37:208 (April 1, 1897). 91

Direct Legislation. "Referendum in New Orleans, A Unique." Pomeroy, Eltweed. Dir. Leg. Rec. 6:65 (Sept. 1899). 92

"Garbage Utilization at Cincinnati and New Orleans." Engin. News Oct. 8, 1896. 93

"Higher Life of New Orleans." King, Grace. Outlook 53:754 (1896). 94

"History of New Orleans, La." King, Grace. See 1-4c. 95

——. History, description and statistics of New Orleans, La., in 1880. Census. See 1-7. 96

——. "Municipal History of New Orleans." Howe, W. W. J. H. Univ. Studies VII:4 (1889). 25 cts. 97

Municipal Ownership. "Ownership of Public Utilities." Woodruff, Clinton Rogers. Ann. Am. Acad. Pol. Sci. 15:126 (Jan. 1900). 98

"Park Development in the City of New Orleans." Johnson, Lewis. Park and Outdoor Art Association, p. 76, 1897. 99

Paving. "History and Selection of Street Paving in the City of New Orleans." Bell, A. C. J. Assoc. Engng. Soc. 22:45 (Feb. 1899). 100

"Public Improvements at New Orleans." Flower, Walter C. pp. 111-145 in "Proc. of the 3d Annual Conv. of the League of Am. Municipalities, 1899." 8vo, 148 pp. Paper. 1

Sanitation in New Orleans. Bell, A. N. Sanitarian 43:314 (Oct. 1899), Engng. Rec. 40:45 (June 17, 1899), Sanitarian 43:64 (July, 1899). 2

Schools. "Kindergarten Outlook in New Orleans, The." Waldo, Eveline A. Kindergarten M. 10:229 (Dec. 1897). 3

Sewerage, Drainage. Sewage Disposal in New Orleans. Brown, L. W. Engng. News 43:180 (March 15, 1900), 44:86 (Aug. 9, 1900); Flower, William C. City Govt. 7:57 (Sept. 1899), Public Improvements 1:270 (Oct. 1, 1899); Harrod, B. M. Engng. Rec. 40:360 (Sept. 16, 1899); Harrod, B. M. Eng. News Dec. 15, 1888; Theard, Alfred F. Engng. Rec. 40:550 (Nov. 11, 1899), J. Assoc. Engng. Soc. 24:62 (Jan. 1900); Waring, G. E. Am. Arch. 7:145 (1879); anon. Engng. Rec. 37:511 (May 14, 1898); Engng. Rec. 40:146 (July 15, 1899); Sanitarian 43:299 (Oct. 1899). 4

——. "Electric Drainage of New Orleans, The." Reed, Lyman C. Elec. W. & E. 34:771 (Nov. 18, 1899). 5

"Telephone Service." Ficklen, John R. Ann. Am. Acad. Pol. Sci. 15:474 (May, 1900). 6

Transit Facilities. "Canal and Claiborne (Street) Railway Company. St. Ry. Jour. 13:265 (May, 1897). 7

"Water Supply of New Orleans, The." Ordway, John M. J. Assoc. Engng. Soc. 24:311 (May, 1900). 8

——. "Water Works, Mayor Flower on New Orleans." City Govt. 7:86 (Oct. 1899). 9

"Women's Work for the Public in New Orleans." Mount, May Wilkinson. Mun. Aff. 2:509 (Sept. 1898). 10

Newport, R. I.

"History of Newport, R. I." Coolidge, Susan. See 1-4a. 11

——. History, description and statistics of Newport, R. I., in 1880. Census. See 1-7. 12

Newton, Mass.

"Crossings on the Main Line of the Boston and Albany Railroad in Newton, Mass., Abolition of the Grade." Farnham, Irving T., Parker, William, and Chamberlain, W. G. S. J. Assoc. Engng. Soc. 21:37 (Aug. 1898). 13

"Sewers at Newton, Mass., Maintenance of the System of Separate." Childs, Stephen. J. Assoc. Engng. Soc. 22:94 (March, 1899). 14

"**New Westminster, B. C.**, Municipal Electric Light Plant at." Can. Elec. N. 8:47 (March, 1898).

New York City.

Government, General References and Unclassified.

"Ameriean Metropolis, The—New York City Life." Moss, Frank. New York, Collier, 1897. 3 Vols. 8vo, 1194 pp. ill. $4. 15

Brooklyn. (For references on government and general conditions in the former city of Brooklyn, see under Brooklyn below.)

"Charter of the City of New York with notes thereon, The: also a treatise on the powers and duties of the mayor, aldermen and assistant aldermen." (Contains Dongan Charter, 1686, Montgomerie Charter, 1708, Charter of 1730 and amended charters of 1830 and 1849.) Kent, Chancellor. New York, Published for the Common Council, 1854. 336 pp. (See also Charter under Greater New York.) 16

"Citizens and Officials of New York City, their rights and duties according to law, together with a popular description of all departments of the City Government." Compiled by the Brooklyn Leader, Brooklyn Leader Pub. House, 1895. 109 pp. 25 cts. 17

"Consolidation Act, The New York City."Ash, Mark. Albany, Weed, Parsons and Co., 1890. $6. 18

"Future Metropolis, The." Coler, Bird S. Pub. Imp. 2:145 (Feb. 1, 1900). 19

——. "Twelve Letters on the Future of New York." (Growth and Commercial Development, Taxation, etc., in New York.) Andrews, Geo. H. New York, M. B. Brown, 1877. 8vo, 45 pp. 20

Government of New York. Bishop, J. B. Nation 50:216 (1890); Buel, C. C. Cent. 49:769 (1895); Flower, R. P., and Pavey, Frank D. Forum 23:531 (July, 1897); Jameson, J. F. Mag. Am. His. 8:315, 598 (1882); Kelly, Edmond. Forum 27:61 (March, 1899); Nadal, E. S. Forum 2:49 (1886); Parkhurst, Charles H. Our Day 9:451 (1892); Parton, James, No. Am. 103:413 (1866); Sears, E. I. Nat. Q. 27:114 (1874); New York Quarterly 3:80 (1854); Hrprs. Wkly. 38:966 (1894); Ann. Am. Acad. Pol. Sci. 12:129 (Sept. 1898). 21

——. "Alleged Frauds in Departments of the City Government of New York." Butler, Geo. B. Report of Committee of the Union League Club, 1884. 14 pp. 22

——. "Borough System in Municipal Government, The." Kelly, Edmond. Forum 27:61 (March, 1899). 23

——. Greater New York, Government of. (See under Greater New York below.)

——. "Misgovernment of New York, A Remedy suggested." Nordhoff, Charles. No. Am. 113:321 (1871). 24

——. "Municipal Code of New York, General." Silvernail, W. H. New York, Banks & Bros., 1895. 95 cts. 25

——. "Municipal Government of New York." Kelly, Edmond. p. 103, Proc. (First) Natl. Conf., 1894. See 6-18a. 26

——. "Municipal Government as Illustrated by the Charter, Finances and Public Charities of New York." Coler, Bird S. New York, D. Appleton & Co., 1900. 12mo, 200 pp. Cl. $1. 27

——. "Property and Good Municipal Government." Real Estate Rec. & Guide Feb. 24, 1894, p. 292.

Greater New York. De Witt, W. C. Munsey's 17:923 (Sept. 1897); Fanton, Mary A. Demorest's Sept. 1897; Matthews, Franklin. Leslie's Wkly. 78:340 (1894), Hrprs. Wkly. 41:385 (April 17, 1897); Palmer, Emerson. No. Am. Rev. 153:250 (1891); Poindexter, Philip. Leslie's Wkly. 78:87 (1894); Thorne, W. H. Globe 7:369 (Dec. 1897); Waldron, Geo. B. McClure's 9:1097 (Oct. 1897); anon. R. of Rs. 10:476 (1894); Gunton's M. May, 1896; Public Life p. 35, (Nov. 1896); N. Y. Educa. 1:296 (Jan. 1898); Ind. 50:19 (Jan. 6, 1898); Outlook 58:107 (Jan. 8, 1898). 28

——. Charter of Greater New York. Pryor, James W. Ann. Am. Acad. Pol. Sci. 10:20 (July, 1897); Rowe, Leo S. Ann. Am. Acad. Pol. Sci. 11:148 (March, 1898); Shaw, Albert. Independent 49:333, 335 (March 11, 18, 1897); Sterne, Simon. Public Improvements 2:150 (Feb. 1, 1900); anon. City Govt. 2:137 (May, 1897), 3:191 (Dec. 1897), 4:22, 52 (Jan., Feb., 1898); Nation 66:103 (Feb. 10, 1898); Ann. Am. Acad. Pol. Sci. 14:136 (July, 1899). 29

——. "Report accompanying the Proposed Greater New York Charter." (With text of Charter.) N. Y. Assembly Doc. No. 53, Feb. 22, 1897, Albany, State Printers. 892 pp. 30

——. "Charter for the Greater New York as submitted in the first report of the committee on draft." Published by the Brooklyn Eagle, Jan. 1897. 56 pp. 5 cts. 31

——. "Charter, Calendar of the New York City." New York, City Club, 1900.

New York City—*Continued.*

12mo, 54 pp. Free. 32

——. "Charter with Table of Amendments, General Index of the New York City." New York, City Club, 1900. 12mo, 36 pp. Free. 33

——. Charter. "Matter of the Hearing in Relation to the Greater New York held before the Sub-Committee of the Joint Committee on the Affairs of Cities." Senate Doc. No. 44, 1896. (Clarence Lexow, Chairman.) 667 pp. 34

——. Charter. "Proceedings of the Association of the Bar of the City of New York regarding the proposed charter of the Greater New York and report of the special committee appointed to examine the said proposed charter." Peckham, Wheeler H. (chairman.) New York, Published by the Bar Association. Pamphlet, 28 pp. 35

——. "Charter for Greater New York, A New." Mun. Aff. 4:449 (Sept. 1900). 36

——. "Charter Revision, New York." (Editorial). Outlook 65:198 (May 26, 1900).

——. "Charter Revision Commission's Report." Baldwin, Henry De Forest. Mun. Aff. 4:768 (Dec. 1900). 37

——. "Consolidation." Real Estate Rec. & Guide Dec. 21, 1895, p. 887; Jan. 18, 1896, p. 84; Jan. 25, 1896, p. 131; Feb. 22, 1896, p. 294; April 4, 1896, p. 564. 38

——. "Against Consolidation; Letters Worth Reading." Storrs, Richard Salter and others. 23 pp. Published by the League of Loyal Citizens, Brooklyn. (No. 4). 39

——. "Against Consolidation; taxes and tenements, a study of municipal conditions." Redfield, William C. Brooklyn, League of Loyal Citizens. 56 pp. 1894, (No. 3). 40

——. "Consolidation, A Brooklyn Boomer on." Real Estate Rec. & Guide Jan. 6, 1894, p. 30.

——. Consolidation. "Greater New York. For re-submission: addresses before the legislative joint sub-committee on consolidation." Storrs, Richard Salter and others. 34 pp. Published by the League of Loyal Citizens, Brooklyn. (No. 7.) 41

——. Election of 1897 in Greater New York. (See under Elections below).

——. "Financial Effects of Consolidation, The." Coler, Bird S. Engng. Rec. 40:608 (Nov. 25, 1899). 42

——. "Government of Greater New York" Coler, Bird S. No. Am. 169:90 (July, 1899); Greene, Francis V. Scrib. M. Oct. 1896; anon. Hrprs. Wkly. 42:20 (Jan. 1, 1898). 43

——. "Greater New York: A Century Hence." Waring, George E., Jr. Mun. Aff. 1:713 (Dec. 1897). 44

——. "Greater New York. Writings and Addresses." Green, Andrew H. New York, 1893. 64 pp. Maps. Paper. 45

——. "Gross New York, eine Studie zur Einverleibungsfrage." Herzfeld, Gustav. Berlin, Dietrich Reimer, 1898. 12mo, 66 pp. Map. 1.50m. 46

——. "Historical Sketch of the Municipal Consolidation." Henschel, Albert E. New York, American News Co., 1895. 72 pages. 25c. 47

——. "History of Greater New York, Leslie's." (Vol. I, To the Consolidation; Vol. II, Brooklyn and other Boroughs; Vol. III, Biography and Geneology). Van Pelt, Daniel. New York, Arkell Pub. Co., 1899. 4to, 554, 539, 649 pp. Cl. $25. 48

——. "Manhattan: The Mother City of Greater New York." van Rensselaer, (Mrs.) Schuyler. Cent. 56:138 (May, 1898). 49

——. "Municipal Problem and Greater New York, The." Shaw, Albert. Atlan. 79:733 (June, 1897). 50

——. "Political Inauguration of the Greater New York." Shepard, Edward M. Atlan. 81:104 (Jan. 1898). 51

——. "Politics of Greater New York." Gunton's 10:166, 341 (1896). 52

"Handbook of New York." King, Moses. Boston, King, 2d. ed., 1893, 928 pp. $1. (Pp. 245-66, "Rule of City.") 53

"Laws, Special and Local, affecting Public Interests in the City of New York." New York Assembly Doc. 148, 1880. 2196 pp. 54

"New York." Chap. II, in "The Land of the Dollar," by G. W. Steevens. New York, Dodd, Mead & Co., 1897. 12mo, 316 pp. $1.50. 55

"New York City." Godkin, E. L. Encyclopaedia Britannica, Vol. 17, pp. 457-66. (With list of books on New York City). 56

New York City—*Continued.*

"New York To-Day." Crosby, Howard. Lend a H. 4:788 (1889). 57

"Political Primer of New York State and City, A." Fielde, Adele M. New York, Macmillan, 1897. 12mo, 100 pp. 58

"Reform in New York, Municipal." Godkin, E. L. Nation 13:84 (1871), 28:331 1879); Leavitt, John B. Forum 17:659 (1894); Nott, C. C. Nation 13:157 (1871); Porrit, E. National 26:237 (1895); Riis, Jacob A. Outlook 64:911 (April, 21, 1900); anon. Nation 70:14 (Feb. 22, 1900). 59

"Reform Organizations in New York City." Tolman, Wm. Howe. Part V, p. 185, "Municipal Reform Movements in the United States." New York, Fleming H. Revell Co., 1895. 219 pp. $1. 60

——. Citizens' Union. Schurz, Carl. Hrprs. Wkly. 41:1215 (Dec. 11, 1897); anon. City and State 4:86 (Nov. 11, 1897); Ind. 49:1536 (Nov. 25, 1897); Nation 66:143 (Feb. 24, 1898). 61

——. "Citizens' Union, Campaign Book of the." First and second edition, 1897. 45 and 151 pp. 62

——. "City Vigilance League." Lawton, Charles E. Outlook 51:54 (1895); Parkhurst, Charles H. No. Am. 156:98 (1893). 63

——. "Committee of Seventy." Hrprs. Wkly. 38:966 (1894).

——. Good Government Clubs. Hale, E. E. Cosmopol. 16:735 (1894); Kelly, Edmond. Christian Union, June 17, 1893, Outlook 50:1124 (1894); Mellen, Chase. Pamphlet Published by Good Government Club F, 1895, 10 pp.; Tucker, Preble. Leslie's Wkly. 79:328 (1894); Tucker, R. S. No. Am. 150:389 (1894); anon. Good Govt. 13:92, 112, 125 (1894). 64

——. "The Independent Movement in New York." Eaton, Dorman B. New York, Putnam, 1880. 65

——. "The Woman's Municipal League." Lowell, Josephine Shaw. Mun. Aff. 2:465 (Sept. 1898). 66

——. (See also under Bossism, Parties, Tammany, etc. below).

"Relations of New York City and State." Bernheim, A. C. Pol. Sci. Q. 9:377 (1894). 67

"Unpaid Boards of Paid Commissioners." Cutting, R. Fulton. New York, The Author, 1900. 8vo, 9 pp. Free. 68

"Walk Uptown, The." Williams, Jesse Lynch. Scribner's 27:44 (Jan. 1900). 69

"Aldermen, New York." Nadal, E. S. Forum 2:49 (1886). 70

Almanac. "New York Press Quarterly." New York, Published quarterly by the New York Press. Edition for the first quarter, 1899, 448 pp. 35c. per year. 71

——. "The World Almanac and Encyclopedia." New York, Published by the New York World. Edition for Jan. 1900, 608 pp. 25c. 72

——. (See also under Brooklyn below).

"Amusements in New York, Popular." Coates, Foster. Chaut. 24:706 (Feb. 1897). 73

Architecture. "Appellate Court House, New York City, The New." Lord, James Brown. Arch. Rec. 9:429 (April, 1900). 74

Art in New York, Public. "Battery, The." Spencer, Nelson S. Public Imp. 2:122 (Jan. 15, 1900). 75

——. "Battery to Harlem, From." (Suggestions of the National Sculpture Society with regard to Municipal Art in New York). Mun. Aff. 3:616 (Dec. 1899). 76

——. "Beautifying New York City." Lopez, Charles A. Public Imp. 2:127 (Jan. 15, 1900). 77

——. "City Beautiful, The." Caffin, Charles H. Hrprs. Wkly. 43:241 (March 11, 1899). 78

——. "Dedication of the Grant Monument." Hrprs. Wkly. May 1, 8, 1897; Park and Cem. 7:54 (May, 1897).

——. "Monuments, New York City." Bush-Brown, H. K. Mun. Aff. 3:602 (Dec. 1899). 79

——. "Temple to Liberty, A." Bush-Brown, H. K. Public Imp. 2:125 (Jan. 15, 1900). 80

"Assemblymen and Senators from the City of New York, Annual Records of the. What are you going to do about it?" New York. Published annually by the City Reform Club, 1886-1893. 8 pamphlets. 72, 65, 106, 93, 88, 127, 132 and 115 pp. 81

New York City—*Continued.*

Bakeshops and Bakers in New York. (See under Labor below).

Baths and Lavatories. Brown, Goodwin. Sanitarian 45:36 (July, 1900); Faure, John P. Municipal Program Leaflet No. 5, New York, 1894, 7 pp. 5c.; Scudamore, Amy L. Lend a H. 17:43 (1896); Tolman, Wm. Howe. Mun. Program Leaflet No. 6, New York, 1894, 10 pp. 5c.; Engng. Rec. Feb. 13, 1892, p. 183; Committee of 70. New York, 1895, 15 pp.; Citizens' Union Pamphlet No. 1, 1897, New York, 12 pp.; Engng. Rec. 40:227 (Aug. 5, 1899), 42:446 (Nov. 10, 1900). 82

——. "Baths and Public Comfort Stations, Report of Mayor's Committee on." Tolman, William Howe, Moreau Morris and William Gaston Hamilton. New York, Published by the Mayor's Committee on Public Baths and Public Comfort Stations, 1897. 195 pp. Ill. Cloth, $1; paper, 50c. 83

Boss Rule in New York City. Leavitt, John B. Forum 17:659 (1894); Editorial. Hrprs. Wkly. 42:1051 (Oct. 29, 1898); Editorial. Ind. 51:1444 (May 25, 1899); Hrprs. Wkly. 43:832 (Aug. 26, 1899); Gunton's 17:161 (Sept. 1899). 84

"Botanical Garden, New York's New." Hrprs. Wkly. 41:718 (July 17, 1897). 85

Bridges. "Aesthetics of Bridge Design as exemplified by two Recent New York Bridges." Boller, Alfred P. Engng. News 38:226 (Oct. 7, 1897). 86

——. "Brooklyn Bridge, The Management of the." Engng. Rec. 38:552 (Nov. 26, 1898).

——. "Bridge Transportation System between New York and Brooklyn." (Illustrated description, engineering features, traffic conditions, terminal facilities, financial results, etc.) St. Ry. Jour. 13:69 (Feb. 1897). 87

——. "Terminals of the Brooklyn Bridge Railway." Emery, Charles E. Engng. News 37:43 (Jan. 21, 1897). 88

——. "Through Train Service across the Brooklyn Bridge, Report on." Engng. News 37:107 (Feb. 18, 1897); Electricity (N. Y.) Feb. 10, 1897. 89

——. "New Electric Power Plant." (Description, statistics on construction and operation of the bridge). Elec. Wld. Jan. 23, 1897. 90

——. "City of Bridges." Warner, John DeWitt. Mun. Aff. 3:651 (Dec. 1899). 91

——. East River Bridge, New. Real Estate Rec. & Guide Oct. 24, 1896, p. 590; Sci. Am. May 8, 1897. 92

——. "East River Bridge, Brooklyn Anchorage of the New." Engng. Rec. 37:514 (May 14, 1898).

——. "East River Bridge Foundation, The New." Engng. News 37:331 (May 27, 1897); Engng. Rec. Nov. 6, 1897, 37:207 (Feb. 5, 1898), 37:223 (Feb. 12, 1898), 37:251 (Feb. 19, 1898).

——. "East River Bridge, Towers and End Spans for the New." Engng. News 39:112 (Feb. 17, 1898).

——. Hudson River, Bridge across the. Lindenthal, Gustav. Engng. M. 6:213 (1893), 10:261 (1895). 93

——. "Long Span Bridges for Great Cities." (With especial references to projects for crossing the East River). Engng. Rec. March 13, 1897. 94

——. "Third Avenue Bridge, The." Real Estate Rec. & Guide Oct. 31, 1896, p. 630.

——. "Washington Bridge Over the Harlem River. Description of its Construction." Hutton, Wm. R. New York, Engineering News Pub. Co., 1889. 8vo, 96 pp. pl. il. cl. $4 95

"Bronx's Past and Future, The Borough of the" Haffen, Louis F. The Christian City 11:192 (Nov. 1899). 96

——. "The Great North Side or Borough of the Bronx." (History, Street Improvements, Educational Advantages, Public Works, Parks and Parkways, Map, etc.) New York, Issued by the North Side Board of Trade, 1897. 8vo, 248 pp. 97

Brooklyn. Godkin, E. L. Nation 42:140 (1886); Halstead, Murat. Cosmopol. 15:131 (1893); Ralph, Julian. Harper's 86:651 (1893). 98

——. Almanac. "Brooklyn Daily Eagle Almanac." Brooklyn, Published annually by the Brooklyn Daily Eagle. Edition for 1899, 600 pp. 25c. 99

——. "Government of Brooklyn City." City Govt. 1:77 (1896).

——. "Government of Brooklyn, Municipal." Low, William G. P. 72, Proc. First Natl. Conf., 1894. See 6-18a. 100

——. "Law Enforcement Society of Brooklyn." Tully, T. DeQuincy. P. 272, Pro. Indianapolis Conf., 1898. See 6-18e. 1

New York City—*Continued.*

——. "Organized Misgovernment." Reid, Sidney. Hrprs. Wkly. 38:326 (1894). 2

——. "Report on the Affairs of the City of Brooklyn and the County of Kings, Preliminary." New York Assembly Doc. 82, 1887. 10 pp. 3

——. "Report of the Commission to Revise all Laws affecting the City of Brooklyn." New York Assembly Doc. 77, 1887. 206 pp. 4

——. "Report in the Matter of the Brooklyn Investigation." New York Assembly Doc. 110, 1887. 80 pp. Minority Report, Doc. 111, 1887. 20 pp. 5

——. (Articles dealing with Brooklyn will also be found under the following subject heads of the present list on New York City: Building Law, Charities, Electrolysis, Garbage Disposal, History, Libraries, Parks, Police, Sanitation, Sewage Disposal, Statistics, Transit Facilities, Water Supply). 6

"Buildings, Tall Office, of New York." Robinson, John B. Engng. M. 1:185 (1891); Real Estate Rec. and Guide, p. 703, April 7, 1894; p. 405, March 17, 1894; p. 1009, June 23, 1894. 7

——. "Brooklyn's New Building Law." Real Estate Rec. & Guide, May 5, 1894.

——. "Building Department, Investigating the New York." Engng. News 41:285 (May 4, 1899).

——. "Building Department, Work of the." Mayer, Julius M. Mun. Aff. 4:760 (Dec. 1900). 8

——. Building Laws, New York. Veiller, Lawrence. Char. R. 9:388 (Nov. 1899); Sci. Am. Sup. March 7, 1896; Arch. and Buil. 27:195 (Dec. 4, 1897); Engng. News 39:39 (Jan. 20, 1898); Engng. Rec. 40:333, 367 (Sept. 9, 16, 1899). 9

——. "Building Laws, Revision of New York's." Real Estate Rec & Guide, July 27, 1895, p. 111; Nov. 23, 1895, p. 714; Jan. 11, 1896, p. 39; Feb. 1, 1896, p. 173; Feb. 8, 1896, p. 217; Feb. 15, 1896, p. 260; March 14, 1896, p. 428; March 28, 1896, p. 519; Aug. 22, 1896, p. 261. 10

——. "Building Laws of New York and Boston, Abstract and Discussion of." Am. Arch. Nov. 21, 1892, p. 97; Engng. Rec. Aug. 6, 1892, p. 159.

——. "Building Law in re High Buildings, The New York." Strachan, Robert C. Pp. 183-196 in "Pro. Brooklyn Engineers' Club for 1889." 8vo, 233 pp. Paper $2. 11

——. "Building Laws and Code, and Health Department Regulations, New York City." Morgan, R. M. New York, N. Y. Banks Laws Pub. Co., 1900. 16mo, 364 pp. Cloth, $1.50. 12

——. "Laws Relating to Buildings in the City of New York." Fryer, William J. Published by the New York Real Estate Rec. & Guide, 1895. 251 pp. $5. (Part I, The Building Law; Part II, Regulations of the Building Department; Part III, Tenement and Lodging House Laws; Part IV, Law Limiting the Height of Dwelling Houses; Part V, Law Relating to Extinction and Prevention of Fires; Part VI, Regulations of Department of Public Works; Part VII, State Factory Inspection Law; Part VIII, Mechanics' Lien Law). 13

——. "Laws Relating to Building in the City of New York." Fryer, William J. New York, D. Van Nostrand Co., 1898. 8vo, Cl. $2.50. 14

——. "Rebuilding of New York." Soc. Econ. 5:327 (1893).

——. "Registration of Plumbers under the New York Building Law." Engng. Rec. 40:392 (Sept. 23, 1899). 15

——. "Paris and New York Contrasted." (Height and Character of Buildings). Real Estate Rec. & Guide April 7, p. 703, 1894. 16

——. "Sky Line of New York, The." 1881-1897. Schuyler, Montgomery. Hrprs. Wkly. March 20, 1897. 17

——. "Statistics of Building Operations. New York City." B. Labor Stat. New York 1:167 (Dec. 1899). 18

Burial. "Graveyards as a Menace to the Commonweal." Windmüller, L. No. Am. 167:211 (Aug. 1898). 19

——. "Thrown in with the City's (Pauper) Dead." Gardner, Helen H. Arena 3:61 (1890). 20

"Catholics, Municipal Donations to, in New York." Hassard, J. R. G. Cath. World 30:846 (1880). 21

Central Park. (See under Parks below).

"Charities of New York." Ritter, John P. Social Econ. 7:152 (1894). 22

——. "Brooklyn, N. Y., Charity in." Lend a H. 3:445 (1888).

——. "Charities of New York, Brooklyn and Staten Island." Cammann, Henry

New York City—*Continued.*

J. and Camp, and Hugh N. New York, Hurd & Houghton, 1868. 8vo, 596 pp. Cl. $5.25. 23

——. "Charities Directory, New York; a classified and descriptive directory to the charitable societies, institutions and churches of the City of New York." New York, Charity Organization Society, issued annually. Edition for 1900. 773 pp. $1. 24

——. "Charity Organization Society of New York City." Lend a Hand. 1:196 (1887). 25

——. "Child Labor, The Evil of." Kelly, Florence. Leslie's Wkly. 70:84 (1890). 26

——. "Children, Placing Out of New York City, in the West." White, F. H. Char. R. 2:215 (1893). 27

——. "Children, Support of, in private institutions at public expense in New York." Lend a H. 12:421, 13:339 (1894). (See also under Public Charities below). 28

——. "Dangerous Classes of New York, The." Brace, Charles Loring. New York, Wynkoop & Hollenbeck, 1880. 448 pp. $1.25. 29

——. "Fresh Air Charities in New York." Browne, Junius Henri. Hrprs. Wkly. 38:803 (1894); Tolman, Wm. Howe. Chaut. 21:713 (1895). 30

——. "Hospitals, Public." Folks, Homer. Mun. Aff. 2:271 (June, 1898). 31

——. "Need of Food, Fuel and Shelter in New York." Phillips, Barnet. Hrprs. Wkly. 38:255 (1894). 32

——. "Penny Provident Fund in New York." McBride, M. M. Char. R. 1:280 (1892). 33

——. "Poor, The City's." New York, Citizens' Union, Pamphlet No. 5, 1897. 16 pp. 34

——. "Poor in New York, Special Needs of the." Riis, J. A. Forum 14:492 (1892). 35

——. Poor in New York. "The Shoe that Pinches." Ralph, Julian. Hrprs. Wkly. 38:33 (1894). 36

——. Poor in New York. "Sketches of Lowly Life in a Great City." Woolf, M. A. New York, G. P. Putnam's Sons, 1899. 4to, 185 pp. Cloth, $2. 37

——. Public Charities. Subsidies to Private Charities in New York. Coler, Bird S. Charities, Vol. III, No. 16. (See also his "Municipal Government," New York, Appleton, 1900, 12mo, 200 pp., cl. $1.); Devine, Edward T. Char. R. 9:338 (Oct. 1899); Folks, Homer. Char. R. 7:869 (Dec. 1897), Char. Vol. III, No. 19, p. 2 Oct. 7, 1899; Hinton, R. J. Old and New 11:477 (1875); Keller, John W. Arena Q. 1:62 (June, 1900); Kinkead, T. L. Char. Vol. III, No. 17, p. 6, Sept. 23, 1899; Rowe, Leo S. Ann. Am. Acad. Pol. Sci. 11:155 (March, 1898); Williams, Henry S. Hrprs. Wkly. 39:148 (1895); anon. Lend a H. 2:574, 633 (1888). 38

——. "Salvation Army Shelter Brigade." Booth, Ballington. Hrprs. Wkly. 37:1257 (1893). 39

——. "Sociological Canvass of the Fifteenth Assembly District of New York City." Laidlaw, Walter. New York, Federation of Churches and Christian Workers. 112 pp. 40

——. "Sociological Information, Handbook of, with especial reference to New York City." Tolman, Wm. Howe. New York, G. P. Putnam's Sons, 1894. 257 pp. $1. 41

——. "Sociological Laboratory, A Year's Work in a City." New York, Published by the Association for Improving the Condition of the Poor, 1896. 139 pp. 10c. 42

——. "Street Begging in New York." Charities Vol. III, No. 24, p. 2, Nov. 11, 1899.

——. "West Side, New York, Charitable Work in the." Thaw, A. B. Lend a H. 10:309 (1893). 43

——. "Woman's Work in the Slums." Booth, Maud B. Hrprs. Wkly. 37:1257 (1893). 44

——. "Women in Philanthropic Work." Mount, May Wilkinson. Mun. Aff. 2:447 (Sept. 1898). 45

Charters of New York, Greater New York. (See under Government, General References, etc. above).

Chinatown. Chinese in New York. (See under Foreign Element below).

Church and Religious Condition. "The Religious Condition of New York City."

New York City—*Continued.*

Addresses at a Christian Conference in Chickering Hall, Dec. 3, 4 and 5, 1888. New York, Baker & Taylor Co., 1888. 12mo, 196 pp. 50 cts. 46

——. "Famous Night Mission in New York." Hereward, L. A. Ecl. M. 121:507 (1894). 47

Citizens' Union. (See Reform Organizations under General References above, also under Elections.)

"City Hall, Preservation of the Historic." Green, Andrew H. New York State Society, Sons of the American Revolution, 1894. 15 pp. 48

——. "A Municipal Opportunity." (New City Hall.) Hrprs. Wkly. 38:198 (1894).

City History Club. (See under History below.)

Civil Service. McAneny, George. Mun. Aff. 4:708 (Dec. 1900); Ralph, Julian. Hrprs. Wkly. 40:131 (1896); Citizens' Union Pamphlet, New York, 1897, 10 pp; Rowe, Leo. S. Ann. Am. Acad. Pol. Sci. 11:113 (Jan. 1898); anon. Nation 66:419 (June 2, 1898); Ann. Am. Acad. Pol. Sci. 13:407 (May, 1899). 49

——. Brooklyn Civil Service. "Address on the Subject of Public Affairs." Carter, Luther C. Brooklyn, Bunce & Co., 1873. 12 pp. 50

——. "Merit System in the Civil Service." New York, Citizens' Union Pamphlet, 1897. 10 pp. 51

——. Police Appointments. (See under Police below.)

"Commercial Growth and Greatness of New York." Kettell, T. P. DeBow's Commercial Review 5:30 (1848). 52

Comptroller of New York City. (See under Finances below.)

Conduits. "The Success of the Open Conduit in New York City." Elec. World 32:254 (Sept. 10, 1898). 53

Courts. "The Law and Practice of the Municipal Court under the Greater New York Charter, with the Boundaries of Boroughs, Districts and Wards; with Forms and Exhaustive Index." Langbein, G. F. and J. C. L. (4th ed.) New York, Banks & Bros., 1898. 8vo, 609 pp. Cloth $5. 54

——. "Bench within New York City." Green Bag July, 1897. 55

——. "Boss and the Bench, The." (Editorial.) Hrprs. Wkly. 42:1051 (Oct. 29, 1898).

——. "City Magistrates' Courts, The." Cornell, Robert E. Scrib. M. 21:221 (Feb. 1897). 56

——. Police Courts. (See under Police below.)

Crime. (See under Police below.)

Croker, Richard. (See under **Croker, Richard.** Also under Tammany below.)

"Department Store in the East, The: General Storekeeping in New York." Steele, John S. Arena 22:174 (Aug. 1899). 57

Driveways. "Gotham's Greater Rotten Row, Peter B. Sweeny's Project for a Grand Terrace on the West Side." New York, Municipal Improvement Association, 1890. 88 pp. 58

"East Side Considerations, New York City." Martin, E. S. Harper's M. 96:853 (May, 1898). 59

——. "East Side Living Conditions." Gunton's 15:194 (Sept. 1898). 60

——. "Spectator on the East Side." Outlook 54:365 (1896).

——. (See also under Streets below.)

Elections. "Ballot in New York." Bernheim, A. C. Pol. Sci. Q. 4:130 (1889). 61

——. "Ballot Bill Proposed by the City Club of New York." New York, Published by the City Club, 1896. 57 pp. 62

——. "Ballot, Party Column, and the Massachusetts Ballot. A Statement of objections to the present (New York) Ballot Law and of Proposed Amendments." New York, Published by the City Club, 1896. 20 pp. 63

——. "Ballot Reform." Ann. Am. Acad. Pol. Sci. 14:137 (July, 1899).

——. "Ballot Reform Law, The New York City and Rural Registry Law." Murlin, Edgar L. Albany, Jas. B. Lyon, 1890. 5th edition, 142 pp. 15 cts. 64

——. "Cumulative Vote, Municipal Reform in New York and the." Law Magazine and Review n. s. 1:206 (1872). 65

——. "Election Day in New York." Ingersoll, Ernest. Cent. 53:3 (Nov. 1896). 66

New York City—*Continued.*

——. "Election Day in Poorer New York." Banks, E. L. English Illustrated M. Jan. 1897. 67

——. "Election Frauds of New York City and their Prevention." New York, American News Co., 1881. $1.50. 68

——. "Election Frauds in New York, 1869." Sedgwick, A. G. Nation 8:165 (1869). 69

——. "Election Law in New York City, Plain Statement of the." Pryor, James W., Arthur H. Ely and Geo. W. Miller. New York, City Club, 1894. 62 pp. 10 cts. 70

——. "The Election Law so far as it relates to the conduct of elections in the city and county of New York." New York, Published by authority, 1897. Pamphlet 121 pp. 71

——. "Election Officers and Voters, Manual for General Election Law and Additional Laws regulating the Conduct of Elections in the Cities of New York and Brooklyn." Jewett, F. G. Albany, Bender, 1895. $1.50. 72

——. Election of 1897. (First municipal election in Greater New York.) Bacon, L. W. Ind. 49:1425 (Nov. 4, 1897); Bryce, James. Contemp. No. 383, p. 750 (Nov. 1897); Moireau, Auguste. Rev. Bleue 8:617 (Nov. 13, 1897); Reynolds, James B. Ind. 49:1225 (Sept. 23, 1897); Schurz, Carl. Hrprs. Wkly. 41:555, 967, 1023, 1047, 1071, 1119, 1191 (June 5, Dec. 4, 1897); Sterne, Simon. Forum 24:553 (Jan. 1898); Stevans, C. M. Our Day 17:515 (Dec. 1897); Wilcox, Delos F. Mun. Aff. 2:207 (June, 1898); anon. City and State 4:6, 22, 38, 39 (Oct. 7-21, 1897); Commons 2:5 (Sept. 1897); Gunton's M. 13:169, 333 (Sept.-Nov. 1897); Hrprs. Wkly. 41:998, 999, 1166, (Oct. 9, Nov. 27, 1897); Ind. 49:1204, 1269, 1302, 1336, 1366, 1398, 1432 (Sept. 16, Nov. 11, 1897); Lit. Dig. 15:603, 636, 787 (Sept. 18, Oct. 30, 1897); Mun. Rec. & Ad. p. 12 (June 19, 1897); Vol. I, No. 19, p. 5 (Oct. 16, 1897), Vol. I, No. 19, p. 3 (Oct. 16, 1897); Nation 65: 123, 216, 292, 332, 350, 368, 430 (Aug 12, Dec. 2, 1897); Outlook 57:214, 263 (Sept. 25, Oct. 2, 1897); Spectator Oct. 9, 1897. 73

——. "Election in Greater New York, The First Municipal." Blair, James L. St. Louis, Nixon-Jones Printing Co., 1898. Pamphlet, 28 pp. 74

——. "Elector's Handbook for the City of New York." Levy, J. M. New York, W. P. Mitchell, 1895, 76 pp. 20 cts. 75

——. "Party Organizations and their Nominations to Office in New York." Bernheim, A. C. Pol. Sci. Q. 3:99 (1888). 76

——. "Police Control of a Great Election, The." Andrews, Avery D. Scribner's 23:131 (Feb. 1898). 77

——. Separate Elections. "An American Utopia." (Separation of municipal from state politics in New York City.) Porritt, Edward. Ecl. M. 123:669 (Nov. 1894). 78

——. "Suffrage in New York, Universal." Mills, C. Internat. R. 8:199 (1879). 79

——. "Suffrage in New York, The Lodging House Vote." Gumbleton, H. A. No. Am. 144:631 (1887). 80

——. See Parties below, also Elections under **New York State.**) 81

Electrolysis. "Conditions of Electrolytic Corrosion in Brooklyn." Sheldon, Samuel. Elec. W. & E. 35:868 (June 9, 1900), Prog. Age 18:297 (July 2, 1900). 82

"Finances of New York City, The." Durand, Edward Dana. New York, Macmillan Co., 1898. 12mo, 397 pp. $2. (See also under History below.) 83

——. "The City's Purse." Baldwin, Henry DeF. Municipal Affairs 1:329 (June, 1897). 84

——. "Comparison as to Cost of Administration in Berlin and New York." Real Estate Rec. & Guide Nov. 10, 1894, p. 673. 85

——. "Comptroller, The New York." Ind. 51:2472 (Sept. 14, 1899).

——. "Confession of Judgment Act." Ann. Am. Acad. Pol. Sci. 16:148 (July, 1900). 86

——. "Cost of Government in City and State." Maltbie, Milo Roy. Mun Aff. 4:685 (Dec. 1900). 87

——. "Debt of New York City, Detailed Statement of the." Mun. Rec. & Ad. July 3, 1897. 88

——. "Estate and Rights of the Corporation of the City of New York as Proprietors, Treatise upon the." Hoffman, Murray. New York, Edmund Jones, Corporation Printer, 1862. 2 vols. 415 and 260 pp. 89

——. Finances of New York with especial reference to charter changes and char-

New York City—*Continued.*

ities. See "Municipal Government," Coler, Bird S. New York, Appleton, 1900. 12mo, 200 pp. Cl. $1. 90

——. "Financial Resources of New York." Martin, William R. No. Am. 127:427 (1878), 91

——. Ford Franchise Tax Law. (See Finances under **New York State.**)

——. "Most Expensive City in the World, The." Coler, Bird S. Pop. Sci. Mo. 57:16 (May, 1900), Public Policy 2:350 (June 2, 1900). 92

——. "Municipal Ownership of Land, History of, on Manhattan Island to the beginning of sales by the Commissioners of the Sinking Fund in 1844." Black, G. Ashton. New York, Columbia College Studies I:3 (1892). 83 pp. 50 cts. 93

——. "Plundering the City." Nation 70:141 (Feb. 22, 1900).

——. "Report relative to the Finances." New York Assembly Doc. 100 (1878). 90 pp. 94

——. "Sinking Funds of New York City." Levey, Edgar J. Mun. Aff. 4:651 (Dec. 1900). 95

——. "Special Assessments in the City of New York." Jasper, William H. Public Policy 3:365 (Dec. 8, 1900). 96

——. Assessment of Taxes. "State Laws relative to the making and perfecting Assessments applicable to the city and county of New York." Stephens, Thomas. compiler. New York, Edmund Jones & Co., 1863. 8vo, 442 pp. 97

——. "Tax Rate of New York, The Future." Arch. & Buil. 29:73 (Sept. 3, 1898). 98

——. Taxation. "Compilation of the Laws of the State relative to the Assessment and Collection of the Taxes in the City and County of New York." Lawrence, A. R., compiler. New York, C. S. Westcott & Co., 1863. 8vo, 253 pp. 99

——. "Taxation in New York City, Some Problems of." Hawley, Walter L. Public Improvements 2:1 (Nov. 1, 1899), Other Side 1:289 (Dec. 23, 1899); Editorial, Arch & Build. 29:73 (Sept. 3, 1898). 100

——. "Taxation of Elevated Railways in the City of New York." Foster, Roger. New York, Putnams. 25 cts. 1

——. Taxation. "History of the New York Property Tax." Schwab, John C. Am. Econ. Assoc. Pubs. Vol. V, No. 5, 1890. Paper, 103 pp. $1. 2

"Fire Brigade, The New York." Bonner, Hugh. Mun. J. & London 8:1357 (Dec. 22, 1899). 3

——. "Fire Department, New York." Croker, E. F. Home M. Oct. 1900; Fire & W. 22:373 (Oct. 9, 1897). 4

——. "Fire Department Electrical Rules, The New York." (Editorial.) Elec. Eng. 24:327 (Oct. 7, 1897). 5

——. "Fire Department Hospital and Training Stables." City Govt. 2:177 (June, 1897). 6

——. "Fire Fighting in New York during 1898." Fire & W. 26:212 (July 1, 1899).

——. "Firemen, The New York." Sheffield, James R. Outlook 58:579 (March 5, 1898). 7

——. "La Nouvelle Brigade des Pompiers de New York." Artibal, J. R. Municipale 3:1851 (Jan. 20, 1900). 8

——. "Law Relating to the Extinction and Prevention of Fires, New York." Fryer, William J. Published by the Real Estate Rec. and Guide, New York, 1895. 251 pp. $5. 9

——. "Organization of the Fire Department of Greater New York." Docharty, Augustus T. Mun. & Ry. Rec. 3:895 (Dec. 15, 1898). 10

——. "Our Firemen, a History of the New York Fire Department, volunteer and paid." Costello, Augustine E. New York, Costello, 1887. 8vo. 11

——. "Our Flimsy Fire Traps." (New York Tenement Houses, see also under Housing below.) Marshall, Edward. Hrprs. Wkly. 39:1157 (1895). 12

Foreign Element. "Character Studies in New York's Foreign Quarters." Earle, E. Lyell. Catholic W. 68:782 (Mar. 1899). 13

——. "Chinatown, New York's. An historical presentation of its people and places." Beck, Louis J. New York, Bohemia Pub. Co., 1899. 8vo, 350 pp. $1.50. 14

——. Chinese of New York, The. Clark, Helen F. Cent. 53:104 (Nov. 1896); Forman, A. Arena 17:620 (1893); Hall, Charlott C. Missionary R. March,

New York City—*Continued.*

1897; Welch, J. H. Demorest's Family M. Jan. 1897. 15

——. "Foreign Element in New York City, The Germans." Manson, George I. Hrprs. Wkly. 32:581 (1888); "Norwegians, Swedes and Danes," 32:661 (1888); "The French," 33:77 (1889); "The Italians," 34:817 (1890); "The Scotch," Wilson, John L. Same 34:513 (1890); "Mulberry Bend Italian Colony." Bengough, W. Same 39:607 (1895); "Russo-Polish Jew Colony." Bengough, W. Same 39:725 (1895); "Syrian Colony." Same 39:746 (1895); "Chinese Colony." Same 40:214 (1896). 16

——. Irish "Home Rule" in New York. Russell, T. W. Fortn. 59:341 (1893); Quar. 171:260 (1890). 17

——. Statistics on foreign population of New York and other cities. Eleventh census, 1890, Report on Population, Pt. I, pp. 90-92, table 50, pp. 704-706. 18

Franchises of New York. (See under Municipal Control, Municipal Ownership below).

Free Lectures. (See under Lectures below).

"French in New York." (See under Foreign Element above).

Gambling, etc. "The Campaign against Vice." Outlook 66:874 (Dec. 8, 1900). 19

Garbage Disposal. Baker, E. Burgoyne,. Munsey's 23:81 (April, 1900); Welles, Henry J. American M. 2:39 (Nov. 1898); anon. Sci. Am. 77:136 (Aug. 28, 1897); Engng. Rec. 40:30 (June 10, 1899), San. Rec. 26:125 (Aug. 10, 1900). 20

——. "Barren Island Garbage Reduction Works, Greater New York." Engng. Rec. 38:275 (Aug. 27, 1898), 39:208 (Feb. 4, 1899); Engng. News 43:66, 76 (Feb. 1, 1900). 21

——. "Brooklyn Solves the Garbage Problem." Williams, Henry Smith. Hrprs. Wkly. 38:844 (1894). 22

——. "Cremating New York's Garbage, About." City Govt. 8:1 (Jan. 1900). 23

——. "Paris and New York Contrasted." (Garbage Removal, etc.) Real Estate Rec. & Guide, p. 703, April 7, 1894.

——. "Report on the Final Disposition of the Wastes of New York." Waring, Geo. E., Jr. New York, 1896, 159 pp. (Article same subject Engng. News, Feb. 20, 1896). 24

——. "Report of Sub-Committee of the Committee of Seventy on Garbage Disposal." 1894. Pamphlet, 16 pp. 25

——. "The Utilization of New York Garbage." Sci. Am. 77:102 (Aug. 14, 1897). 26

Gas. (See under Lighting below).

Germans in New York. (See under Foreign Element above).

Harbor Facilities. "Department of Docks." Cram, J. Sergeant. Public Improvements 1:77 (July 1, 1899). 27

——. "Commercial Blight, New York's." Black, William Nelson. Engng. M. 3:291, 463 (1892). 28

——. "The Crippled Commerce of New York." Black, William Nelson. New York, W. K. Farrington Co., prs., 1891. 41 pp. 29

——. "Docks, Bulkheads and Matter Relating thereto in the City of New York, Report Relative to the Building and Leasing of." New York State Assembly Doc. 132, 1882. 1501 pp.; New York Senate Doc. 64, 1886, 73 pp. 30

——. "Harbor of New York." (Features, amount of trade, number of vessels). Seaboard (N. Y.) Feb. 18, 1897.

——. "Harbor and Trade, New York." Transport (London) Nov. 18, 1893.

——. Harbor Police. (See under Police below).

——. "Municipal Ownership of Docks in New York City." Coler, Bird S. Mun. Aff. 4:207 (March, 1900), Municipal Ownership 1:21 (June, 1900). 31

——. "Storage and Transportation in the Port of New York." Black, William Nelson. New York, G. P. Putnam's Sons, 1884. 37 pp. 32

——. "The Water Front of New York." Sommer, Berthold. Arena Q. 1:89 (June, 1900); Williams, Jesse Lynch. Scribner's 26:385 (Oct. 1899). 33

——. "Value of Our Municipal Water Front Property." Real Estate Rec. & Guide June 17, 1893, p. 944.

Harlem. "The City to the North of Town." Barnes, James. Harper 95:866 (Nov. 1897). (See also under History below). 34

Health Department. (See under Sanitation below).

"Higher Life of New York City." Shaw, Albert. Outlook 53:132 (1896). 35

New York City—*Continued.*

History. "The American Metropolis from Knickerbocker Days to the Present Time. New York City Life in all its various phases." Moss, Frank. New York, P. F. Collier, 1897. 3 vols. 8vo, 425, 429, 340 pp. $4. 36

——. "Annals and Occurrences of New York City and State in the olden time, being a collection of memoirs, anecdotes and incidents concerning the city, county and inhabitants from the days of the founders." Watson, John F. Philadelphia, H. F. Anners, 1846. 8vo, 390 pp. 37

——. "Annetje Jans' Farm." Putnam, Ruth. New York, Vol. I, No. 3, City History Club Publications, 1897. 5c. 38

——. "Bibliography of the Dutch Period." New York, City History Club, pamphlet, 3 pp., 1896. 39

——. "Bowery, The." Hewitt, Edward Ringwood, and Hewitt, Mary Ashley. New York Half Moon Series. Published by G. P. Putnam's Sons, 1897. 25 pp. 10c. 40

——. "Bowery under Dutch Rule, The." Stephenson, John. Ind. 50:208 (Feb. 17, 1898). 41

——. "Bowling Green." Trask, Spencer. Half Moon Series 2:165 (May, 1898). New York, G. P. Putnam's Sons, 1898. 10c. 42

——. "Brief History of the City of New York." Todd, Charles B. New York, American Book Co., 1899. 12mo, 299 pp. $1. 43

——. Brooklyn. "The Civil, Political, Professional and Ecclesiastical History and Commercial and Industrial Record of the County of Kings and City of Brooklyn, 1683-1884." Stiles, Henry R. 3 vols. Albany, Munsell. $15. 44

——. Brooklyn. "Historical Sketch of the City of Brooklyn, and the surrounding neighborhood, including the village of Williamsburg, and the towns of Bushwick, Flatbush, Flatlands, New Utrecht and Gravesend, etc." Brooklyn, 1840. 12mo, $5. 45

——. Brooklyn. "History of Brooklyn, N. Y." Putnam, Harrington. See 1-4b. 46

——. Brooklyn. "A History of the City of Brooklyn and Kings County." Ostrander, S. M. Brooklyn, 1894. 8vo, 2 vols. Ill. $10. 47

——. Brooklyn. "Origin of Breuckelen." Putnam, Harrington. Half Moon Series 2:387 (Nov. 1898). 48

——. City History Club of New York, The. Kelley, Frank Bergen. Mun. Aff. 3:61 (March, 1899); Todd, Charles Burr. Gunton's 18:444 (May, 1900). 49

——. City History Club. "Women's Work on City Problems." Winsor, Anna Ware. Mun. Aff. 2:463 (Sept. 1898). 50

——. "Colonial New York, Golden Age of." Lamb, Martha J. Mag. of Am. History 24:1 (July, 1900). 51

——. Colonial Period in New York. Ch. XVII, "English Colonies in America." Lodge, Henry Cabot. New York, Harper, 1882. 8vo, 560 pp. $3. 52

——. "Description of the Province and City of New York with plans of the city and several forts as they existed in the year 1695." Miller, John. Edited by John Gilmary Shea. New York, William Gowans, 1862. 8vo, 127 pp. 53

——. "Dongan Charter to the City of New York." Gerard, James W. Mag. of Am. History 16:30 (July, 1886). 54

——. "Dutch on Manhattan." Lossing, Benson J. Harper's M. 9:433 (1854). 55

——. "Earlier New York, The." Stephenson, John. Ind. 49:1424 (Nov. 4, 1897), Ind. 50:208 (Feb. 17, 1898). 56

——. "English in New York." Vol. III, p. 385 and Vol. V, pp. 189-207; 231-58 of Winsor's "Narrative and Critical History of America." Boston, Houghton M. & Co., 1884-9. 8vo. 57

——. "English and Dutch Towns of New Netherland." McKinley, A. E. Am. Hist. R. Oct. 1900. 58

——. "Evolution of New York, The." Janvier, Thos. A. Harper 86:813, 87:15 (1893). 59

——. Finances. "The City Chest of New Amsterdam." Durand, Edward Dana. New York, Half Moon Series, Published by G. P. Putnam's Sons, 1897. 29 pp. 10c. 60

——. "Fort Amsterdam in the Days of the Dutch." Goodwin, Maud Wilder. New York, Half Moon Series, Published by G. P. Putnam's Sons, 1897. 36 pp. 10c. 61

——. "Governor's Island." Bellamy, Blanche Wilder. New York, Vol. I, No. 5, City History Club Publications, 1897. 10c. 62

New York City—*Continued.*

—. "Greenwich, Old." Bisland, Elizabeth. New York, Half Moon Series. Published by G. P. Putnam's Sons, 1897. 26 pp. 10c. 63

—. Harlem. "Deduction of the title of Harlaem Commons, with abstract of the title of Dudley Seldon (Commencing with a grant from Gov. Nicholls, 1666)." New York, 1872. 8vo. 64

—. "Historians, New York and its." van Rensselaer, (Mrs.) Schuyler. No. Am. 171:724 (Nov. 1900), 171:872 (Dec. 1900). 65

—. "Historic Town Series: New York." Roosevelt, Theodore. New York. Longmans, G. & Co., 2d ed., 1895. 232 pp. $1.25. 66

—. "Historical Sketch of New York City." Kelley, Frank Bergen. Our Country 6:69 (Oct. 1897). 67

—. "History of the City of New York." Booth, Mary L. New York, W. R. C. Clark, 1867. 2 vols. 8vo, 892 pp. 68

—. "History of the City of New York; its origin, rise and progress." Lamb, Martha J. and Harrison, (Mrs.) Burton New York, Barnes, 1877-80. 3 vols. $20. 69

—. "History of New Amsterdam, or New York, as it was in the Days of the Dutch Governors." Davis, A. New York, 1854. 16mo, 240 pp. 70

—. "History of New York City." (1609-1884). Lossing, Benson J. N. Y., Perine, 1884. 8vo, 2 vols., 881 pp. $15. 71

—. "History of New York City, with supplement." Stone, William L. New York, Cooke, 1876. 8vo, 252 pp. 72

—. "History of New York from the beginning of the World to the End of the Dutch Dynasty." Humorous. (Knickerbocker, Diedrich). Irving, Washington. Knickerbocker Edition, New York, Putnam, 1864. 73

—. "History of New York, N. Y." Gilder, J. B. See 1-4b. 74

—. History, Description and Statistics of New York City in 1880. Census. See 1-7. 75

—. "Kings College, now Columbia University." Pine, John B. New York, Vol. I, No. 2, City History Club Publications, 1897. 5c. 76

—. "Liberty in New York, The Beginnings of." van Rensselaer, (Mrs.) M. G. Lippincotts M. May, 1897. 77

—. "Local History and the Civic Renaissance in New York." Am. Mo. R. of Rs. 16:446 (Oct. 1897). 78

—. "Mayor of New York, First." (Thomas Willett). Mag. of Am. History 17:233 (March, 1897). 79

—. "Memorial History of the City of New York." Wilson, James Grant (Editor). New York History Co., 1892. 4 vols. $7.50 each. 80

—. "Municipal Government of New York City, Origin and Development of the." Jameson, J. F. Mag. Am. His. 8:315, 598 (1882). 81

—. "Nationalities, Impress of, on New York City." Gerard, James W. Mag. of Am. History 23:40 (Jan. 1890). 82

—. "New York, Past, Present and Future, and the American Advertiser." Belden, E. Porter. N. Y., 1850. 3d ed. 83

—. "Nooks and Corners of Old New York." Hemstreet, Charles. New York, Charles Scribner's Sons, 1899. 12mo, 228 pp. Cloth, $2. 84

—. "Old New York." Munsey's 19:43 (April, 1898). 85

—. "Our Great Metropolis: Its Growth, Misgovernment and Needs." Butler, William Allen. New York, 1880. 48 pp. $1. 86

—. "Prisons and Punishments, Old." Lewis, Elizabeth Dike. Half Moon Series 2:83 (March, 1898). 87

—. "Recollections of Persons and Events, 1810-1865." Matthews, J. M. New York, 1865. 8vo. 88

—. "Records of New Amsterdam from 1653 to 1674 Anno Domini." Edited by Berthold Fernow. New York, Published under the authority of the City of New York (Knickerbocker Press), 1897. 7 vols. with index. 89

—. "Reminiscences of an Octogenarian of the City of New York, 1816-1860." Haswell, C. H. New York, Harper, 1896. 12mo, 581 pp. $3. 90

—. "Schools and Schoolmasters of New Amsterdam, Early." Van Vechten, Emma. Half Moon Series 2:321 (Sept. 1898). 91

—. "Slavery in New York." Morgan, Edwin V. Half Moon Series 2:1 (Jan. 1898). New York, G. P. Putnam's Sons. 12mo, 30 pp. 10c. 92

New York City—*Continued.*

——. "Stadt Huys of New Amsterdam, The." Earle, Alice Morse. New York, City History Club, (Putnams and Brentanos) 1897. Vol. I, No. 1, Half Moon Series on Historic New York. 5c. 93

——. "Story of the City of New York." Todd, Charles Burr. New York, Putnams, 1888. 478 pp. $1.75. 94

——. "Syllabus of a Course on: I, The English Period; II, The Revolutionary Period." New York, City History Club, pamphlet, 17 pp., 1896. 95

——. "Syllabus of a Course of Study in the History of the City of New York." Hoy, William Alexander. New York, City History Club, pamphlet, 15 pp., 1897. 96

——. Tammany, History of. (See under Tammany, Tweed Ring below).

——. "Teacher's Handbook of the City History Club." New York, City History Club, 1899. Pamphlet, 24 pp. 97

——. "Two Years' Journal in New York and Part of its Territories in America." 1679. Wooley, Charles. Edited by E. B. O'Callaghan. New York, William Gowans, 1860. 8vo, 97 pp. 98

——. "Valentine's Manuals of the Corporation of the City of New York." (Historical matter, reminiscences, maps, views, etc.) New York, 1841-1870. 28 vols. 18mo, 8vos, over 4,000 pages. (Historical Index to the above by O. H. New York, Francis P. Harper, 1900. 8vo, 95 pp.) 99

——. "Wall Street, 1653-1789, Early History of." Villard, Oswald Garrison. New York, Vol. I, No. 4, City History Club Publications, 1897. 5c. 100

——. "Washington's Inauguration, The City of New York in the Year of 1789." Smith, Thomas E. V. New York, A. D. F. Randolph & Co., 1889. 8vo, 244 pp. 1

——. "Wells and Water Courses of the Island of Manhattan, Old." Hill, Geo. Everett and Waring, Geo. E., Jr. New York, Half Moon Series, Published by G. P. Putnam's Sons, 1897. 66 pp. 20c. 2

——. (See also History under **New York State**).

Hospitals. (See under Charities above).

Housing. "Apartment Houses, Model." (New York City and Suburban Homes Company Designs). Arch. and Buil. 26:7 (Jan. 2, 1897). 3

——. "A City Block in 1896." White, Gaylord I. Char. R., vol. V, No. 20, p. 2 (Oct. 13, 1900). 4

——. "Cat Alley, The Passing of." Riis, Jacob A. Cent. 58:166 (Dec. 1898). 5

——. East Side, Housing. "Living Conditions, The City's Health." Daniel, A. S. Mun. Aff. 2:247 (June, 1898). 6

——. "Homewood." Gould, E. R. L. Am. R. of Rs. 16:43 (July, 1897). 7

——. "Improved Dwellings for the Poor." (City and Suburban Homes Co). Independent 49:96 (Jan. 21, 1897). 8

——. "Improved Housing Effort, Half a Century of, by the New York Society for Improving the Condition of the Poor." Tolman, W. H. Yale R. 5:288, 389 (Nov. 1896, Feb. 1897). 9

——. "Inferno Explored, New York's." Booth, (Mr. and Mrs.) Ballington. New York, Published at Salvation Army Headquarters, 1891. 96 pp. 10

——. "Letting in the Light in New York City." Riis, Jacob A. Atlan. 84:495 (Oct. 1899). 11

——. "Lodging House Laws, New York City." Part III, "Laws Relating to Buildings in the City of New York." Fryer, William J. Published by the Real Estate Rec. and Guide, New York, 1895. 251 pp. $5. 12

——. Lodging Houses, New York. Barry, Richard. Hrprs. Wkly. 38:429 (1894); Byrnes, T. No. Am. 149:355 (1889); Johnson, W. P. Lend a H. 8:304 (1892); Moss, Isaac. Leslie's Wkly. 80:87 (1895); anon. Hrprs. Wkly. 34:450 (1890); Leslie's Wkly. 82:296 (1896); R. of Rs. 15:59 (1897). 13

——. "Mills Hotel, New York, The." Macdonald, J. R. Puritan, July, 1899. 14

——. "Mulberry Street Barons, The Last of the." Riis, Jacob A. Cent. 58:119 (May, 1899). 15

——. "Out of Mulberry Street." (Tenement Stories). Riis, Jacob A. New York, Cent. Co., 1898. 12mo, 269 pp. Cl. $1.25. 16

——. "Sanitary Condition of the Laboring Population of New York with suggestions for its Improvement." Griscom, John H. New York, Harper Bros., 1845. 58 pp. 17

——. "Slums of New York." Forman, A. Am. M. 9:46 (1889). 18

New York City—*Continued.*

——. "Slums in New York, An Account of the Battle with the: A Ten Years' War." Riis, J. A. New York, Houghton, Mifflin & Co., 1900. 12mo, 267 pp. Cloth, $1.50. 19

——. Slums of New York. See the Seventh Special Report of the Commissioner of Labor on "The Slums of Great Cities." 1894. 20

——. Tenement Houses in New York. Tenement House Reform. Cadman, S. Parkes. Chaut. 25:587 (Sept. 1897); Elsing, W. T. Scrib. M. 11:697 (1892); Flagg, E. Scrib. M. 16:108 (1894); George, Henry. Leslie's Wkly. 80:200 (1895); Marshall, Edward. No. Am. 157:753 (1893); Potter, E. T. Char. R. 1:129 (1892); Riis, Jacob A. Hrprs. Wkly. 39:42 (1895), Cent. 53:246 (1896); Rollins, A. W. Forum 4:221, 5:207 (1888); Tricoche, George Nestler. Jour. des Economistes 23:3, 182 (1895); Valeah, Eva McD. Arena 7:580 (1893); Wingate, C. F. A series of six articles beginning in the New York Tribune, Nov. 23, 1884; anon. Real Estate Rec. & Guide Feb. 9, 1895, p. 204; Charities, Vol. V, No. 4, p. 1, June 23, 1900. 21

——. "Christmas in the Tenements." Riis, Jacob A. Cent. 55:163 (Dec. 1897). 22

——. Commissions. "Report of Tenement House Commission." N. Y. Senate Doc. No. 36, 1885. (Mr. Joseph W. Drexel, Chairman). 232 pp. 23

——. Commissions. "Tenement House Problem in New York, For the Information of the Commission on Legislation Affecting Tenement and Lodging Houses." Bayles, James C. New York, W. P. Mitchell, prs., 1887. 45 pp. 24

——. Commissions. "Tenement House Problem in New York." N. Y. Sen. Doc. No. 16. Transmitted to the Legislature, 1888. (History with Diagrams). 25

——. Commissions. "Tenement House Committee of 1894, Report of." N. Y. Assembly Doc. No. 37, 1894. (Richard W. Gilder, Chairman). 649 pp. 26

——. Commissions. "Tenement House Committee Maps." Pierce, Frederick E. Hrprs. Wkly. 39:62 (1895). 27

——. Commissions. "The New York Tenement House Commission." Riis, Jacob A. Am. R. of Rs. 21:689 (June, 1900). 28

——. "Evictions from Tenement Houses in New York." McLoughlin, W. P. Arena 7:48 (1892). 29

——. "Fire Traps, Our Flimsy." (Tenement Houses in New York). Marshall, Edward. Hrprs. Wkly. 39:1157 (1895). 30

——. "Improved Tenements in London and New York." Am. Arch. 29:120 (1890). 31

——. Laws. "Laws and Ordinances relating to Tenement and Lodging Houses in New York." Published by the Health Department, 1891. 32

——. Laws. "Tenement House Laws of New York." Part III of "Laws relating to Buildings in the City of New York." Fryer, William J. New York, Published by the Real Estate Rec. & Guide, 1895. 251 pp. $5.00. 33

——. Laws. "The New Tenement House Law of New York." Real Estate Rec. & Guide June 1, 1895, p. 912; Nov. 23, 1895, p. 715. 34

——. Laws. "Proposed Amendments to the Tenement House Law." New York, Real Estate Rec. & Guide April 4, 1896, p. 566.

——. Laws. "Tenement House Legislation in New York, 1852-1900." Veiller, Lawrence. New York, Tenement House Com., 1900. 8vo, 197 pp. Paper. 35

——. Laws. "Tenement House Requirements of the New York Building Law." (Editorial.) Engng. Rec. 40:377 (Sept. 23, 1899). 36

——. "Life in a New Tenement House." Daley, Agnes. Charities, p. 1, Dec. 8, 1900. 37

——. Model Tenement Houses. "A Contribution to the Study of the Tenement Houses of New York City by the Tenement House Building Co." 1891. 33 pp., diagrams. 38

——. "Model Tenements in New York." Real Estate Rec. & Guide Feb. 16, 1895, p. 247.

——. "New York's Tenement Houses." New York, Citizens' Union Pamphlet No. 4, 1897. 8 pp. 39

——. "Rear Tenements, Passing of the." Leslie's Wkly. 83:75 (1896).

——. Reform. "Tenement House Reform in the City of New York." Gallatin, James. Transactions American Public Health Association, Vol. VI, 1881. Reprinted in pamphlet form. 11 pp. 40

——. "Tenement House Reform in New York, 1834-1900." Veiller, Lawrence. New York, 1900. 8vo, 48 pp. Pamphlet. 41

New York City—*Continued.*

——. "Studies among the Tenements. How the Other Half Lives." Riis, Jacob A. New York, Scribners, 1892. 304 pp. $1.25. 42

——. "Where New York Lives." Chap. III in "The Land of the Dollar," by G. W. Steevens. New York, Dodd, Mead & Co., 1897. 12mo, 316 pp. $1.50. 43

Industrial Education. (See under Schools.)

Irish in New York. (See under Foreign Element above.)

Italians in New York. (See under Foreign Element above.)

Jews in New York, Russo-Polish. (See under Foreign Element above.)

Labor in New York. "Bakeshops and Operative Bakers in New York, Brooklyn and vicinity, Conditions of." Weissman, Henry. New York, 1895. Pamphlet, 29 pp. 5 cts. 44

——. Sweating. Sweat Shops in New York. Curley, E. A. Leslie's Wkly. 79:124 (1894); Mayer, Julius M. Gunton's M. August, 1896. Warner, John De Witt. Hrprs. Wkly. 39:135 (1895); anon. Sanitarian, 38:413 (May, 1897). 45

——. "Effects of New York Sweat Shop Law." White, Henry. Gunton's 18:345 (April, 1900). 46

——. "Report of the Committee of Manufactures on Sweating." p. 4, 181 et seq. H. R. Reports No. 2309, 1893. John De Witt Warner, Chairman. 47

——. "Sweaters of New York, The." Righter, G. Emil. New Time 2:383 (June, 1898). 48

——. "My Experience as a Sweater." Tompkins, Elizabeth A. Leslie's Wkly. 70:529 (1890). 49

——. Working Women in New York. Brown, E. S. Am. J. Soc. Sci. 25:78 (1887); Daniel, Annie S. Am. J. Soc. Sci. 30:73 (1892); Fawcett, E. Arena 5:26 (1891). 50

"Lecture Course of New York, The Free." Leipziger, Henry M. Mun. Aff. 3:462 (Sept. 1899). (See also under Schools below). McCormick, S. D. Outlook 64: 121 (Jan. 13, 1900). 51

Legislation. "Notes on Bills introduced in the New York State Legislature, 1899." New York City Club, 1899. 118 pp. 52

——. "Special and Local Laws affecting Public Interests in the City of New York." New York Assembly Doc. 148, 1880. 2196 pp. 53

Lexow Investigation. (See under Police below.)

Library, New York Public. Billings, John S. Outlook 58:55 (Jan. 1, 1898); Emerson, Edwin J., Jr. Hrprs. Wkly. 41:1223 (Dec. 11, 1897); Hutton, Lawrence. Hrprs. Wkly. 39:273 (1895); anon. Lib. J. 20:84 (1895); Arch. Rec. 7:385 (Jan.-Mar. 1898). 54

——. "Brooklyn, Libraries of." Ford, P. L. Lib. J. 13:286 (1888); White, W. A. Lib. J. 11:111 (1886). 55

——. Library Building, New York Public. Arch. & Buil. 27:52, 207 (June 5, Dec. 11, 1897). 56

——. "Library Consolidation in New York City, For." Lib. J. Oct. 1900.

Lighting in New York, Electric. Knudson, A. A. Elec. Eng. 26:440 (Nov. 3, 1898); anon. Elec. World 31:4, 70 (Jan. 1, 18, 1898); Elec. Engng. 25:161 (Feb. 10, 1898); Elec. W. & E. 33:331 (March 18, 1899). 57

——. "Gas Combination, The New." Mun. & Ry. Rec. 6:168 (April 15, 1900). 58

——. Gas Commission, Gas Statistics. (See also under **New York State.**)

——. "Gas Consolidation in New York." Prog. Age 15:333 (Aug. 2, 1897).

——. Gas. "History of the Gas Supply of New York, A Sketch of the." J. Gas. Light. 76:828 (Oct. 2, 1900), 76:892 (Oct. 9, 1900). 59

——. "Gas Inquiry for New York City." Prog. Age 15:24 (Jan. 15, 1897).

——. Gas. "Report of the Special Committee to Investigate the Consolidated Gas Company." N. Y. Senate Doc. No. 47, 1886. 60

——. Municipal Ownership of Lighting Facilities. (See under Municipal Control, Municipal Ownership below.)

——. "Waste a Million Yearly." (Lighting.) Municipal Ownership 1:2 (June, 1900). 61

Liquor Problem in New York. Crosby, Howard. Forum 2:420 (1886); Gribayédoff, V. Leslie's Wkly. 82:292 (1896); Raines, J. No. Am. 162:481 (1896); anon. R. of Rs. 12:143 (1895); Hrprs. Wkly. 40:290 (1896). 62

New York City—*Continued.*

——. "Liquor Traffic in New York, The." Rowe, Leo S. Ann. Am. Acad. Pol. Sci. 11:157 (March, 1898). 63

——. "New York City and its Masters." (Liquor Problem in New York City.) Graham, Robert. New York, Church Temperance Society, 1887. 47 pp. 64

——. "Operation of the New York Liquor Tax Law." p. 338 "The Liquor Problem in its Legislative Aspects." Wines, Frederick H. and John Koren. Boston and New York, Houghton, M. & Co., 1898. 65

——. Saloon in New York City Politics. Dorman, Lester M. Church R. 42:158 (1883); Waring, Geo. E. Outlook 60:436 (Oct. 15, 1898). 66

——. Sunday Closing of Saloons in New York. Iglehardt, F. C. No. Am. 161:467 (1895); Roosevelt, Theodore. Forum 20:1 (1895), McClure's 5:475 (1895); Windmüller, L. Forum 20:211 (1895); Pub. Opin. 19:33, 134, 167 (1895); Chaut. 21:760, 22:97 (1895); R. of Rs. 12:389, 464, 648 (1895); Outlook 52:420 (1895). 67

Lodging Houses. (See under Housing above.)

"Market Play Grounds." (New York.) Waring, Geo. E. Hrprs. Wkly. 39:1237 (1895). (See also under Parks below.) 68

Markets. "How New York is Fed." Riding, William H. Scrib. M. 14:729 (1877). 69

"Mayor, Power of Appointment of the." Ann. Am. Acad. Pol. Sci. 12:129 (Sept. 1898). 70

Mazet Investigation. (See under Police below.)

Mills Hotels. (See under Housing above.)

"Mulberry Bend, Clearing of a New York Slum." Riis, J. A. R. of Rs. 12:172 (1895). (See also under Housing above.) 71

Municipal Control, Municipal Ownership. Franchises of New York. Bernheim, A. C. Cent. 50:149 (1895); West, Max. Chapter V, pp. 365-424 in "Municipal Monopolies," by Edward W. Bemis, also same Yale R. 6:387 (Feb. 1898). 72

——. "Gas Franchises, New York City." Myers, Gustavus. Prog. Age 18:420 (Oct. 1, 1900). 73

——. Gas Supply, Municipal Ownership of, in New York City. Pro. Grout, Edward M. Contra. Foote, Allen R. Mun. Aff. 1:245 (June, 1897). Commented on in Prog. Age 15:314, 334 (July 15, Aug. 2, 1897). 74

——. "History of Public Franchises in New York City." Myers, Gustavus. Mun. Aff. 4:71 (March, 1900). 75

——. "Street Railroad and Lighting Franchises, Municipal Ownership of." Public Hearings before the Greater New York Charter Commission on. (Memorandum on behalf Kings County Democratic League favoring.) Cruikshank, Alfred B. New York, 1897. 9 pp. 76

——. "Municipal Street Railways of New York, Ownership and Operation of." A discussion. Warner, John De Witt, Aff.; Higgins, Edward E., Neg. Mun. Aff. 1:421 (Sept. 1897). 77

——. (See also under **New York State.**)

Municipal Ownership of Land in New York. (See under Finances above.)

Nominations. (See under Elections above.)

Norwegians, Swedes and Danes in New York. (See under Foreign Element in New York.)

Parks, New York. Matthews, A. F. Leslie's Wkly. 81:74 (1895); Nadal, E. S. Scrib. M. 11:439 (1892); anon. Soc. Econ. 2:65 (1891); Garden & F. 5:132, 144, 420 (1892); Hrprs. Wkly. 38:44 (1894); Real Estate Rec. & Guide June 1, 1895, p. 913. 78

——. Bronx Park. Vail, Anna Murray. Garden & F. 4:314 (1891). 79

——. "Bronx Park Horticultural Buildings, New York Botanical Garden." Park & Cem. 8:4 (March, 1898). 80

——. Brooklyn. "Prospect Park." DeWolf, John. Engng. M. 3:16 (1892); anon. Garden & F. 1:217, 262, 335 (1888); Park & Cem. 7:162 (Sept. 1897). 81

——. "Brooklyn's New Parks." City Govt. 2:83 (March, 1897).

——. "Central Park." Cook, Clarence. Scrib. M. 6:523, 673 (1873). 82

——. "Central Park's Approaches." Guggenheimer, Randolph. Public Improvements 1:37 (June 1, 1899). 83

——. "Central Park under Ring Leader Rule." Nat. Quarterly Rev. 22:294 (Mar. 1871). Published also in pamphlet form by Edward I. Sears, New York, 1871. 24 pp. 84

New York City—*Continued.*

——. "Spoils of the Park." Olmsted, Frederick Law. 1882. 57 pp. 85

——. "City Hall Park." Stephenson, John. Ind. 49:1607 (Dec. 9, 1897), 49:1646 (Dec. 16, 1897). 86

——. "Coney Island Park." Coler, Bird S. Pub. Imp. 1:57 (June 15, 1899). 87

——. "Establishment of Public Parks in the City of New York." Davis, Gherardi. Paper read before the New York Historical Society, April 6, 1897. Pamphlet, 47 pp. 88

——. "History of the Parks of New York City, Some Early." Park & Cem. 7:81, 130 (June, Aug. 1897).

——. "Jeanette Park." Garden & F. 3:498 (1890). 89

——. "Our Parks." Seguin, E. Papers read before the New York Academy of Science, April 30, 1877, Feb. 1, 1878. New York, Public Parks Protective Association, 1878. 8vo. 90

——. "Playgrounds for Children." Vrooman, Walter. Hrprs. Wkly. 35:350 (1891). 91

——. "Playgrounds, Market." Waring, Geo. E., Jr. Hrprs. Wkly. 39:1237 (1895). 92

——. "Playgrounds, New York's Summer." Brackett, Mary Morrell. Kindergarten M. 11:621 (June, 1899). 93

——. "Riverside Park." Stiles, W. A. Cent. n. s. 8:911 (1885). 94

——. "Riverside Park, New York's." Cady, Thomas. Munsey's 20:73 (Oct. 1898). 95

——. "Society for Parks and Playgrounds, New York." Garden & F. 3:594 (1890). 96

——. "Zoological Park, New York," Hornaday, William T. Hrprs. Wkly. April 3, 1897. 97

——. (See also Recreation Piers below.)

Parties, Partisan Politics in New York. "The Issues of Next City Campaign." Coler, Bird S. Ind. 52:3079 (Dec. 27, 1900). 98

——. "Criminal Politics." (Especially in New York City.) Godkin, E. L. No. Am. 150:706 (1890). 99

——. "Jobs in Cities." (Corruption in New York City Politics.) Seeger, Ferdinand. No. Am. 143:87 (1886). 100

——. "Machine Politics in New York City." Roosevelt, Theodore. Cent. 33:74 (1886). Same essay, p. 46, in his "Practical Politics," and Ch. VI, p. 102 in his "American Ideals and Other Essays." 1

——. "Non-partisanship in Municipal Government." Flower, R. P., Pavey, Frank D. Forum 23:531 (July, 1897). 2

——. "Republican Reorganization of New York City." Hrprs. Wkly. 38:76 (1894). 3

——. (See Reform Organizations under General References above, also Boss Rule, History, Tammany Hall, Tweed Ring, etc.)

Paving, New York. Newberry, J. S. School of Mines Quarterly, Columbia College 10:289 (1889). 4

——. "Alcatraz Streets in New York." City Govt. 2:104 (April, 1897).

——. "Asphalt in New York." Palmer, O. M. Pub. Imp. 1:22 (May 15, 1899). 5

——. "Municipal Engineering in New York." (A sample "job"—repaving of 5th Ave.) Engng. News Oct. 2, 1886. 6

——. "Street Railway Tracks and the Pavements in New York City." Waring, Geo. E., Jr. Hrprs. Wkly. Feb. 13, 1897. 7

Playgrounds. (See under Parks above.)

Police Force, New York's. Ingersoll, Ernest. Scrib. M. 16:342 (1878); Matthews, Franklin. Hrprs. Wkly. 40:231 (1896); Riis, Jacob A. Outlook 60:581 (Nov. 5, 1898); Roosevelt, Theodore. Atlan. 80:289 (Sept. 1897); Wheatley, Richard. Harper 74:495 (1887); Chaut. 16:689 (1893); Williams, C. Contemp. 53:214 (1888); anon. Hrprs. Wkly. 38:39 (1894). 8

——. "Administering the New York Police Force." Roosevelt, Theodore. Ch. VIII, p. 160 "American Ideals and Other Essays," New York, Putnams, 1897. 12mo, 354 pp. $1.50. 9

——. "Appointment and promotion in the New York City Department of Police, Report of a Special Committee on the system of." Schurz, Carl, and others. Good Govt., May 15, 1896. 10

——. "Broadway's Grenadiers." Harrington, John W. Munsey's 22:43 (Oct. 1899). 11

New York City—*Continued.*

—. "Brooklyn's Guardians: a Record of the faithful and heroic men who preserve the peace in the City of Brooklyn." Fales, W. E. S. Brooklyn, Caxton, 1887. 8vo. $6. 12

—. Courts. "Reform in New York's Police Courts." Matthews, Franklin. Hrprs. Wkly. 39:1036 (1895). 13

—. Courts. "Social Aspects of New York Police Courts." Smith, Mary Roberts. Am. J. Sociol. 5:145 (Sept. 1899). 14

—. "Crime and Punishment in New York." Crosby, Howard. No. Am. 133:-167 (1881). 15

—. "Dangerous Classes of New York City." Brace, C. L. New York, Wynkoop & Hallenbeck, 1872. 448 pp. 16

—. "Harbor Police, New York's." Stoddard, W. O. Harper 45:672 (1872). 17

—. History. "New York Police Force." (History during Strong administration.) Roosevelt, Theodore. Atlan. 80:289 (Sept. 1897). 18

—. "Our Police Protectors; History of the New York Police, from the earliest period to the present time." Costello, Augustine E. New York, Costello, 1885. 8vo. $5. 19

—. "Recollections of a New York Chief of Police." Walling, Geo. New York, Caxton, 1887. 8vo. 20

—. Legislation. "Problem of Police Legislation. A consideration of the best means of dealing with it in New York City." Eaton, Dorman B. New York, Putnam, 1895. Questions of the Day Series No. 81. 21

—. Lexow Investigation. "Report of the Committee appointed by the Senate to investigate the Police Department of the City of New York." Transmitted to the Legislature, Jan. 18, 1895. 61 pp. (Clarence Lexow, Chairman.) 22

—. Lexow Investigation. "Report and Proceedings of the Senate Investigating Committee on the Police Department of the City of New York." 5 vols. Albany, 1895. (Known as the Lexow Committee.) 23

—. Lexow Investigation. Gribayédoff, V. Leslie's Wkly. 81:7 (1895); Leavitt, John B. Forum 17:659 (1894); Matthews, Franklin. Leslie's Wkly. 79:167 (1894); Parkhurst, Chas. H. Chap. XX, p. 240, "Our Fight with Tammany"; Reid, Sidney. Hrprs. Wkly. 38:663 (1894); anon. Hrprs. Wkly. 38:607 (1894); Soc. Econ. 7:9 (1894); Sat. R. 80:199 (1895). 24

—. "Satan's Invisible World Displayed or Despairing Democracy." (Mainly Lexow evidence.) Stead, W. T. New York, R. T. Fenno & Co., 1897. 12mo, 300 pp. $1.25. 25

—. "Mazet Investigation, The." Moss, Frank. Ind. 52:299 (Feb. 1, 1900). 26

—. "Parkhurst, Dr., and the New York Police." Homiletic R. May, 1892. 27

—. "Police Station, A New York City." Engng. Rec. 37:499 (May 7, 1898).

—. Politics. "Taking the Police out of Politics." Roosevelt, Theodore. Cosmopol. 20:40 (1895). 28

—. "Roll of Honor of the New York Police." Roosevelt, Theodore. Cent. 54:803 (Oct. 1897). 29

—. (See also Police under **New York State.**)

Primaries. (See also under Elections above.)

Prostitution. "How to Solve the Problem of the Social Evil." Flagg, J., Jr. New York, 1895. 23 pp. 10 cts. 30

—. "Prostitution in New York." Ch. XXXII-XXXVI, pp. 450-676 of W. W. Sanger's "History of Prostitution," 1876. (See History under **Prostitution.**) 31

—. The Campaign against Vice. Outlook 66:874 (Dec. 8, 1900); Mun. Aff. 4:698 (Dec. 1900). 32

"Public Conveniences in New York City." Engng. Rec. (London) 37:341 (Sept. 18, 1897). (See also under Baths above.) 33

"Public Works, Investigation of the Department of. Report of Committee." Roosevelt, Theodore. New York Assembly Docs. 125, 153 and 172 of the session of 1884. 34

—. "Management of Public Works in Greater New York." Engng. Rec. 36:470 (Oct. 30, 1897).

—. "Recent Administration of the Department of Public Works of the City of New York." The City Club of New York, 1897. 16mo, 133 pp.

Ramapo Water Project. (See under Water Supply below.)

New York City—*Continued.*

Rapid Transit in New York. (See under Transit Facilities below.)

Recreation Piers. Kendall, Edward H. Public Imp. 1:78 (July 1, 1899); O'Brien, Edward C. Mun. Aff. 1:509 (Sept. 1897); Rogers, W. H. Hrprs. Wkly. 41:706 (July 17, 1897). 35

Reform. Reform Organizations in New York. (See under General References above.)

Religious Condition. (See under Church above.)

Russo-Polish Jew Colony. (See under Foreign Element in New York.)

Saloons in New York. (See under Liquor Problem above.)

Salvation Army Work. (See under Charities above.)

Sanitation, Sanitary Condition, New York. Biggs, Herman M. Sanitarian 39:385 (Nov. 1897); Billings, John S. Forum 16:346 (1893); Waring, Geo. E. Scrib. M. 22:64, 179 (1881); Wheatley, Richard. Hrprs. Feb. 1897; Wingate, C. F. Engng. M. 3:316 (1892). 36

——. "Brooklyn, Sanitation in." Billings, J. S. Forum 16:346 (1893). 37

——. "Brooklyn, Unwholesome Environs of." Williams, Henry Smith. Hrprs. Wkly. 38:726 (1894). 38

——. "Health Board, Report of The New York." Tolman, W. H. Altruist Vol. 5, No. 4, p. 15 (Oct. 1897). 39

——. "Health Department of the Greater New York." Smith, Stephen. Sanitarian 38:293 (April, 1897). 40

——. "Improvement in New York during the last quarter of a Century, Sanitary." Clarke, Emmons. Pop. Sci. Mo. 39:319 (1891). 41

——. "Plumbing and Ventilation Inspection in New York." Eng. and Buil. Rec. 21:315 (1890). 42

——. "The Women's Health Protective Association." Trautmann, Mary E. Mun. Aff. 2:439 (Sept. 1898). 43

Schools. School System of New York. Maxwell, William H. Mun. Aff. 4:742 (Dec. 1900); Olin, Stephen H. Educa. R. 8:1 (1894); Reprinted by Good Govt. Club E, 1894, 6 pp., Harper 90:584 (1895); Rice, J. M. Forum 14:616 (1893); Van Rensselaer, (Mrs.) Schuyler. Hrprs. Wkly. 40:463 (1896); anon. Hrprs. Wkly. 40:99, 219 (1896); Dial 24:101 (Feb. 16, 1898). 44

——. "Attendance upon the Public Schools." Draper, A. S. Leslie's Wkly. 73:428 (1892). 45

——. "Buildings of New York, School." Robinson, John Beverley. Arch. Rec. 7:359 (Jan., March, 1898); Snyder, C. B. J. Educa. R. 15:17 (Jan. 1898). 46

——. "Public School Buildings in New York City, their condition as shown in official reports." Publications of Good Government Club E, No. 7, 1895. 23 pp. 47

——. "Education in the Greater New York Charter." Fitzpatrick, F. A. Educa. R. May, 1897. 48

——. "Free Lectures in New York Schools." Willis, S. T. Forum 29:332 (May, 1900). 49

——. "Greater New York, Educational System of." Butler, Nicholas Murray. Independent 49:305 (May 11, 1897). 50

——. "Schools of Greater New York—How the New System is to be Administered." N. Y. Educa. 1:275 (Jan. 1898). 51

——. "Industrial Education in New York." Science 9:553 (1887).

——. "Kindergartens of New York City, Public." Kindergarten M. 10:110 (Oct. 1897).

——. "More and Better Public Schools." New York, Citizens' Union Pamphlet No. 3, 1897. 16 pp. 52

——. "Public Education in the City of New York; its History, Condition and Statistics, official report to the Board of Education." New York, 1869. 8vo. 53

——. "Sanitary defects in Primary Schools." Chapin, Henry D. Leslie's Wkly. 72:40 (1891). 54

——. "Vacation Schools in New York." Tolman, William Howe. R. of Rs. 16:191 (Aug. 1897), Mun. Aff. 2:433 (Sept. 1898). 55

Scotch in New York, The. (See Foreign Element in New York.)

Settlements, College, Social, University, in New York. Betts, Lillian W. Outlook 51:684 (1895); Taylor, Graham. Commons, Vol. 2, No. 5, p. 12 (Sept.

New York City—*Continued.*

1897); Todd, Charles Burr. Gunton's 19:166 (Aug. 1900); anon. Lend a H. July, 1893. 56

——. "The Church Settlement." (329 E. 84th St.) Atterbury, Anson P. Open Ch. 1:161 (Oct. 1897); Sanford, Mary B. Churchman March 23, 1895; anon. Harper's Bazar 29:300 (April 11, 1896). 57

——. College Settlement. (95 Rivington St., New York.) Dyer, Francis J. Harper's Bazar May 31, 1890, Churchman June 11, 1892; Freeman, H. F. Lend a H. 5:154 (March, 1890); Halstead, Carolyn. Delineator July, 1895; Richardson, Hester D. Lippincott's June, 1891; Scudder, Vida D. Christian Union May, 10 and 17, 1888; anon. Nation Feb. 9, 1893; Ann. Am. Acad. Pol. Sci. 9:164 (Jan. 1897). 58

——. "East Side House." Wheeler, Everett P. Churchman Aug. 12, 1893, Outlook Feb. 10, 1894. 59

——. "Gospel Settlement." Outlook 57:732 (Nov. 1897).

——. "Grace Church Settlement Work." Winslow, F. E. Char. R. 8:418 (Nov. 1898). 60

——. "Hartley House." Char. R. 6:380 (June, 1897). 61

——. "Neighboring Guild." (Now University Settlement). Stover, Charles B. J. H. Univ. Studies VII, p. 65, appendix to F. C. Montague's "Arnold Toynbee." 62

——. "Union East Side Settlements." Brown, Wm. Adams. Ind. 49:1691 (Dec. 23, 1897). 63

——. The University Settlement. (26 Delancey St.) Gilder, Joseph B. Hrprs. Wkly. May 4, 1895; Char. R. Dec. 1891; Hrprs. Wkly. 35:615 (1891), 37:647 (1893), 39:423 (1895); The Critic June 20, 1891; Lend a H. 12:204 (March, 1894); Leslie's Wkly. 78:178 (1894). 64

——. "Women in New York Settlements." Kingsbury, Mary M. Mun. Aff. 2:458 (Sept. 1898). 65

"Sewage of the Metropolis, Disposal of." Denton, J. B. New York, E. & F. N. Spon, 1887. 21 pp. $1.60. 66

——. "Sewage Disposal in New York, Damages Due to." Engng. Rec. 41:561 (June 16, 1900). 67

——. "Sewerage System, Care and Maintenance of the New York." Potter, F. D. City Govt. 4:167 (May, 1898). 68

——. "Sewage Treatment, Brooklyn, N. Y., Chemical." Engng. Rec. 39:378 (Mar. 25, 1899).

"Singing Classes in New York, The People's." Stevenson, E. Irenaeus. Ind. 49:1041 (Aug. 13, 1897). 69

Sinking Funds, New York's. (See under Finances above.)

Slums of New York. (See under Charities, Housing, above.)

"Sociological Laboratory, A Year's Work in a." New York, Published by the Association for Improving the Condition of the Poor, 1896. 139 pp. 10 cts. (See also under Charities, Housing, above.) 70

Special Assessments. (See under Finances above.)

Statistics. "Vital Statistics of New York City and Brooklyn covering a period of six years ending May 31, 1890." Billings, John S. Washington, Government Printing Office, 1894. 529 pp. Eleventh Census of the United States. 71

Street Cleaning in New York. Agnew, S. H. City Govt. 1:1 (1896); Gibson, F. M. Public Improvements 1:4 (May 1, 1899); Hewes, F. W. Hrprs. Wkly. 39:233 (1895); Waring, George E. Hrprs. Wkly. 39:1022 (1895), Independent 49:105 (Jan. 28, 1897), McClure's 9:911 (Sept. 1897); Williams, Henry Smith. Hrprs. Wkly. 38:971 (1894); anon. Engng. News p. 173, Aug. 22, 1891; Engng. Rec. Dec. 21, 1895; Sanitarian Sept. 1896: Engng. Rec. 37:121 (Jan. 8, 1898). 72

——. "City Cleansing in New York City." Meade, Charles A. Mun. Aff. 4:721 (Dec. 1900). 73

——. "Clean Streets." New York, Citizens' Union Pamphlet No. 2, 1897. 16 pp. 74

——. "Clear Streets." Pumpelly, J. C. Municipal Program Leaflet No. 2, 1894. 7 pp. 5 cts. 75

——. "Cost of Street Cleaning in New York City." Andrews, William S., and George E. Waring. Mun. Rec. & Ad. p. 15, June 26, 1897. 76

——. "The Labor Question in the Department of Street Cleaning of New York." Waring, Geo. E., Jr. Mun. Aff. 1:515 (Sept. 1897). Reprinted in the New Zealand Journal of Department of Labour 6:175 (Feb. 12, 1898). 77

New York City—*Continued.*

——. "Report of the Commissioner of Street Cleaning to the Mayor." Andrews, William S. New York Sept. 15, 1893. 13 pp. 78

——. "Street Cleaning Clause in the Proposed Charter for Greater New York." Sanitarian Sept. 1896. 79

——. "Street Cleaning of New York, for 1895-6-7, Report of the Department of." Mun. Aff. Supplement to June, 1898. 8vo, 234 pp. 50 cts. 80

Street Railways. (See under Transit Facilities below.)

"Streets of New York, The Cross." Williams, Jesse Lynch. Scribner's 23:571 (Nov. 1900). 81

"Streets, Plan for the Widening of New York East Side." Van der Weyde, N. J. Sci. Am. Supp. 47:19642 (June 24, 1899), 48:19714 (July 29, 1899). 82

"Strong, Mayor." Chaut. June, 1897; Ind. 49:1526 (Dec. 30, 1897). 83

——. "New York's Civic Assets, a Summing up of the progress made during Mayor Strong's administration." Tolman, Wm. Howe. Am. Mo. R. of Rs. 17:55 (Jan. 1898). 84

Sunday Closing of Saloons in New York. (See under Liquor Problem above.)

Sweating. (See under Labor above.)

Syrian Colony in New York. (See under Foreign Element in New York.)

Tammany Hall. Bishop, J. B. Nation 50:236 (1890); Cary, Edward. Forum 26:200 (Oct. 1898); Croker, Richard. No. Am. 154:225 (1892); Davis, Hartley. Munsey's 24:55 (Oct. 1900); Denslow, Van Buren. Internat. R. 8:428 (1880); Eaton, Dorman B. No. Am. 154:297 (1892); Edwards, E. J. McClure's 4:445, 569, 5:325, 542 (1895); Godkin, E. L. Nation 50:235, 290 (1890), 53:385 (1891), 56:60 (1893), 59:356 (1894); Howe, Rufus. Harper's M. 44:685, 835 (April, May, 1872); Matthews, Franklin. Hrprs. Wkly. 40:494 (1896), 44:957 (Oct. 13, 1900); Merwin, Henry C. Atlan. 73:240, 74:680 (1894); Mowry, Arthur M. Am. Hist. R. 3:292 (Jan. 1898); Phelps, E. J. Lakeside 7:330 (1871); Taylor, Warren. Munsey's M. May, 1893; de Varigny, C. Rev. d. Deux Mondes 124:878 (1894); Vio-late, A. Correspondant April 25, 1898; Wheeler, D. H. Lakeside 5:402 (1871); Williams, Talcott. Lalor's Cyclopedia, Vol. III, pp.850-6, Half-Moon Series 2:33 (Feb. 1898); anon. Am. Hist. Rev. 3:415 (1874); Hrprs. Wkly. 38:39 (1894); Leslie's Wkly. 79:17 (1894); Hrprs. Wkly. 40:99 (1896); Gunton's 14:325 (May, 1898); Outlook 66:99 (Sept. 8, 1900). 85

——. "Richard Croker, as 'Boss' of Tammany." Edwards, E. J. McClure 5:542 (1895). 86

——. "Kelly, John, Tammany under." Edwards, E. J. McClure 5:325 (1895). 87

——. "Life and Times of John Kelly, Tribune of the People." McLaughlin, J. Fairfax. New York, American News Co., 1885. 12mo, 309 pp. $1.50. 88

——. "Our Fight with Tammany." Parkhurst, Charles H. New York, Scribner's, 1895. 296 pp. $1.25. 89

——. "Political Mission of Tammany Hall." King, A. B. New York, 1892. 30 pp. 10 cts. 90

——. "Politics in a Democracy." Thompson, Daniel Greenleaf. New York, Longmans, Green & Co., 1893. 176 pp. (Chapters X, XI and XII present a philosophical justification of Tammany Hall.) 91

——. "Tammany Ring in New York City, The." Chap. LXXXVIII, p. 377, Vol. II, Bryce's "American Commonwealth." 92

——. "Tammany from within." Tyng, T. Mitchell. New York, Tammany Hall Souvenir, 1893. 93

——. Unemployed, Tammany and the. (See under Unemployed below.)

——. (See also under Bossism in New York, Police, Tweed Ring, etc., above.)

Taxation in New York. (See under Finances above.)

Telephone Rates and Services, New York. Elec. Rev. April 14, 1897, 31:180 (Oct. 13, 1897), 33:327 (Nov. 23, 1898); Elec. W. & E. 33:572 (May 6, 1899). 94

——. "Reconstruction of the Telephone Lines in Westchester County, N. Y." Elec. Eng. April 21, 1897.

Tenement Houses of New York. (See under Housing above.)

"Topography of Greater New York." Real Estate Rec. & G. 60:161 (Nov. 20, 1897).

Transit Facilities of New York, General articles on. Barry, Richard. Hrprs. Wkly. 42:204 (Feb. 26, 1898); Ingersoll, Ernest. Outlook 58:829 (Apr. 2, 1898); Rowe, Leo S. Ann. Am. Acad. Pol. Sci. 11:115 (Jan. 1898); anon. St. Ry. J.

New York City—*Continued.*

Aug. 1892, p. 469; Mun. Rec. & Ad. Aug. 14, 1897; Ry. World 6:332 (Nov. 1897). 95

——. Broadway Cable Road, New York. Iles, Geo. Engin. M. 4:351 (1892); anon. Engng. Rec. July 25, 1891. 96

——. Brooklyn Bridge, Use of, by Transportation Companies. Engng. News 38:323 (Nov. 18, 1897); St. Ry. J. 14:39 (Jan. 1898); Elec. World 31:179 (Feb. 5, 1898); Railroad Gaz. 30:460, 476 (June 24, July 1, 1898). 97

——. "Brooklyn—Electrical Equipment of the Suburban Service of the Long Island Railroad System." Elec. World 30:607 (Nov. 20, 1897).

——. "Brooklyn Electrical Subways, Report of the Bureau of Commissioners of." Barrett, John A. St. Ry. Jour. 13:46 (Jan. 1897). 98

——. "Brooklyn Elevated, The Long Island Railroad and the." Railroad Gaz. 30:256 (April 8, 1898). 99

——. "Brooklyn Elevated, Report of the." Railroad Gaz. Jan. 15, 1897.

——. "Brooklyn Heights Railroad Company, The General Passenger Department of the." Kennedy, H. Milton. St. Ry. Jour 13:341 (June, 1897). 100

——. "Brooklyn Rapid Transit System, Financial Characteristics and Operating Organization of the." St. Ry. J. 13:842 (Dec. 1897); St. Ry. J. 15:370 (June, 1899).

——. "Brooklyn Rapid Transit System, The Traffic Difficulties of the." St. Ry. J. 16:31 (Jan. 6, 1900).

——. "Cars and Car Service in Metropolitan New York." Vreeland, H. H. St. Ry. J. 16:958 (Oct. 13, 1900). 1

——. "Compressed Air Surface Cars in New York." Safety V. (New York) Nov. 1895.

——. "Consolidation of Street Railway Companies." Real Estate Rec. & Guide April 30, 1892, p. 682 Dec. 17, 1892, p. 799.

——. "Dead Man's Curve." (Recommending change of motive power to electricity to overcome danger at corner 14th Street and Broadway.) Elec. World March 6, 1897.

——. "Earnings and Profits on Manhattan Island, Transportation." St. Ry. J. 15:876 (Dec. 1899). (See also under Traction below.)

——. "Eighth Avenue Railroad, The City and the." New York, pamphlet, dated May 25, 1897. 72 pp.

——. "Elevated Railway Contracts, The." Elec. Rev. 32:40 (Jan. 19, 1898).

——. "Elevated Railways, Electricity on the." Fransioli, W. J. and Sidney H. Short. Elec. World March 6, 1897; anon. Elec. World Feb. 27, 1897; Elec. Eng. 25:61 (Jan. 13, 1898); St. Ry. J. 15:165 (March, 1899); Railroad Gaz. 32:793 (Nov. 30, 1900). 2

——. Elevated Railway, The Manhattan. Densmore, George C. Mun. & Ry. Rec. 4:203 (June 15, 1899); Nichols, O. F. Railroad Gaz. 30:469 (July 1, 1898); Towner, Hiram. Ind. 49:1126 (Aug. 26, 1897); anon. Mun. Rec. & Ad. 2:219, 602 (Jan. 29, June 15, 1898); Elec. Eng. 26:178 (Aug. 25, 1898). 3

——. Elevated Railroads in the City of New York, Taxation of. (See under Finance above.)

——. "The Elm Street Subway in New York." Engng. Rec. 42:463 (Nov. 17, 1900). 4

——. "Harlem River Bridge and Street Railway Service, The New." Mun. Rec. & Ad. 2:583 (June 15, 1898).

——. "Horse Railways, Communication from the Comptroller of New York City regarding the Income from." Senate Doc., 1885, no. 35. 5

——. Manhattan Elevated Railway. (See under Elevated Railways above.)

——. "Metropolitan Street Railway of New York." Railroad Gaz. 32:359 (June 1, 1900).

——. Metropolitan Street Railway Conduit Lines. (Underground Trolley.) Railroad Gaz. March 5, 1897; St. Ry. R. 7:248 (April 15, 1897); Elec. Eng. 24:149 (Aug. 19, 1897); Elec. World 30:239, 328, 615 (Aug. 28, Sept. 18, Nov. 18, 1897); Mun. Rec. & Ad. Vol. I, No. 25, p. 8 (Nov. 27, 1897); St. Ry. J. 13:825 (Dec. 1897), 14:719 (Nov. 1898). 6

——. "Metropolitan Street Railway System, Earnings of the." Mun. Rec. & Ad. 3:870 (Nov. 15, 1898); Elec. W. & E. 34:336 (Sept. 2, 1899). 7

——. "The Metropolitan System: Horse Car, Cable, Compressed Air and Electric." Densmore, George C. Mun. & Ry. Rec. 7:39 (Aug. 15, 1900). 8

New York City—*Continued.*

——. Metropolitan Street Railway Company of New York. Main Power Station and Transmission System. Ty. & Ry. W. 9:57 (Feb. 8, 1900); St. Ry. J. 16:213 (Mar. 3, 1900). 9

——. "Metropolitan Street Railway Company and Rapid Transit." Mun. & Ry. Rec. 4:141 (April 15, 1899).

——. "Metropolitan Street Railway Company, The Track Construction of the." Reed, W. B. Mun. & Ry. Rec. 6:157 (April 15, 1900). 10

——. Municipal Control, Municipal Ownership. (See under Municipal Control, etc., above, also Municipal Control under **New York State.)**

——. "Operating Expenses of Street Railways in New York and Brooklyn." St. Ry. J. July, 1891, p. 406.

——. Rapid Transit Problem, New York. Chittenden, L. E. Hrprs. Wkly. 35:134 (1891); Gribble, T. Graham. Engng. M. 1:165, 338 (1891); Heilprin, Louis. Engng. M. 3:447 (1882); Sprague, Frank J. St. Ry. J. March, 1891, St. Ry. Gaz. March, 1891; White, W. Howard. Railroad Gaz. April 24, 1891, p. 279; anon. Engng. News Jan. 2, 1886; Railroad Gaz. Jan. 11, 1886; Elec. World Jan. 9, 1886; Railroad Gaz. Oct. 9, 1891, p. 700, Oct. 16, 1891, p. 720, Oct. 23, 1891, p. 745; Engng. News Oct. 10, 1891, p. 342, Oct. 17, p. 352, Oct. 24, p. 389; Engng. Rec. Oct. 24, 1891, p. 334; Real Estate Rec. & Guide Nov. 19, 1892, p. 649, Nov. 26, 1892, p. 633, Dec. 3, 1892, p. 715, Dec. 10, 1892, p. 759, Dec. 24, 1892, p. 835, Dec. 31, 1892, p. 873, Jan. 14, 1893, p. 41, June 10, 1893, p. 903, Oct. 13, 1894, p. 501, March 9. 1895, p. 368, March 23, 1895, p. 455, May 30, 1896, p. 926; Am. Arch. 44:90 (1895); Outlook 61:398 (Feb. 18, 1899); Mun. & Ry. Rec. 5:305 (Dec. 15, 1899). 11

——. "Rapid Transit Act Constitutional, New York State." Engng. Rec. Aug. 22, 1896. 12

——. "Rapid Transit, City Officials of New York on." Real Estate Rec & Guide Sept. 30, 1893, p. 369, Oct. 7, 1893, p. 398.

——. "Rapid Transit for New York City, Financial Discussion of." Cooper, Theodore. Railroad Gazette March 20, 1891, p. 191. 13

——. "Rapid Transit, Inter-Metropolitan." (New York, Brooklyn.) Nichols, O. T. Rensselaer Soc. Engrs. Vol. I, p. 163. 14

——. "Rapid Transit Lines, New York." Parsons, Wm. Barclay. Engng. Rec. Dec. 29, 1894. 15

——. "Rapid Transit, Some Lessons in." Heilprin, Louis. Engng. M. 3:447 (1892). 16

——. Rapid Transit. "The Making of a Model New York City." Foote, Allen R. 1891. Pamphlet, 22 pp. 17

——. Rapid Transit. "Report of the Board of Rapid Transit Railroad Commissioners in and for the City of New York on Rapid Transit in Foreign Cities." (London, Glasgow, Liverpool, Berlin, Paris, American practice, Baltimore and Chicago.) Parsons, Wm. Barclay. New York, 1894. Ill. plates, 66 pp. 18

——. Rapid Transit. (See also under Underground Railway below.)

——. "Rapid Transit Plan for Broadway, New York." Reno, J. W. Sci. Am. Supp. April 24, 1897. 19

——. "Sixth and Eighth Avenue Surface Railroad in the City of New York. The City's Interest. Facts." (Proposes that New York should reclaim and sell franchises of these roads.) N. Y., April, 1897. Pamphlet. 55 pp. 20

——. "Statistics, New York Street Railway." St. Ry. R. 8:795 (Nov. 15, 1898); St. Ry. J. 16:95 (Jan. 27, 1900). 21

——. Street Railroads. "City Railroads." p. 45 "The Growth of New York." New York, Geo. W. Wood, 1865. Pamphlet. 49 p. 22

——. "Street Railways of Greater New York." Pamphlet 72 pp. Redmond, Kerr & Co., 1898. 23

——. "Suburban New York in comparison with like service afforded in London, Railroad Facilities of." Crowell, Foster. Engng. M. 10:1029 (1896). 24

——. "Suburban Rapid Transit Railroad." Railroad Gaz. July 24, 1891, p. 509. 25

——. Suburban Transit Facilities. "The 'Trolley' near New York." Ingersoll, Ernest. Hrprs. Wkly. 40:755 (1896). 26

——. "Third Avenue Lease, Statement by Mr. Vreeland on." St. Ry. J. 16:510 (May 26, 1900).

——. Traction,—Cable, Electric and Horse. Costs and Profits. Vreeland, H. H.

New York City—*Continued.*

St. Ry. J. 14:721 (Nov. 1898); anon. Eng. News Jan. 14, 1897; Sci. Am. Jan. 16, 1897; Ry. World 7:402 (Dec. 8, 1898); St. Ry. J. 15:579, 16:999 (Sept. 1899, Oct. 13, 1900). 27

——. "The Transfer System." R. R. Gaz. Dec. 21, 1894.

——. Tunnels under East River. Engng. News March 14, 1891, p. 249, 37:22 (Jan. 14, 1897), 38:329, 344 (Nov. 18, Nov. 25, 1897), 41:319 (May 18, 1899), 42:416, 420 (Dec. 28, 1899); Pub. Imp. 1:169 (Sept. 1, 1899); Sci. Am. 81:10 (July 1, 1899). 28

——. "Tunnel Plans for New York, New Jersey and Long Island, Electric." Elec. W. & E. 34:76 (July 15, 1899). 29

——. Underground Railway, New York Rapid Transit. Armstrong, Albert H. St. Ry. R. 8:478 (July 15, 1898), Elec. Eng. 26:77 (July 28, 1898); Lewis, Alfred Henry. Arena Q. 1:35 (June, 1900); Lindenthal, G. Railroad Gaz. 29:207, 215 (March, 1897); Mayo, Earl W. Outlook 65:21 (May 5, 1900); Orr, Alexander E. Mun. & Ry. Rec. 3:911 (Dec. 15, 1898); Parsons, William Barclay. Scribner's 27:545 (May, 1900); Pryor, James W. Ann. Am. Acad. Pol. Sci. 11:421 (May, 1898); Rowe, Leo S. Ann. Am. Acad. Pol. Sci. 11:138 (March, 1898); Standiford, Charles W. Arena Q. 1:50 (June, 1900); v. d. Werra, F. M. Zeitschr. d. Ver. Deutscher Ing. May 26, June 2, 1900; Whalen, John. Arena Q. 1:38 (June, 1900); anon. Arch & Buil. 27:145, 189 (Oct. 23, Nov. 27, 1897), 28:13, 97 (Jan. 8, March 19, 1898), 30:105 (April 8, 1899), 31:33 (July 29, 1899); Mun. Rec. & Ad. Vol. I, No. 24, p. 10 (Nov. 20, 1897); Railroad Gaz. 29:870 (Dec. 10, 1897), 30:214 (March 25, 1898), 31:223 (March 31, 1899); Engng. News 38:409 (Dec. 23, 1897), 40:416 (Dec. 29, 1898); St. Ry. J. 15:225, 873 (April, Dec., 1899), 16:30, 93 (Jan. 6, 27, 1900); Engng. Rec. 39:399, 562 (April 1, May 20, 1899), 40:497 (Oct. 28, 1899); Outlook 61:809 (April 8, 1899); Ann. Am. Acad. Pol. Sci. 13:409 (May, 1899); Public Improvements 2:7, 123 (Nov. 1, 1899, Jan. 15, 1900), 3:361 (July, 1900); Ty. & Ry. World 9:14 (Jan. 11, 1900); Sci. Am. 82:69 (Feb. 3, 1900); Eng. (Lond.) 89:424 (April 27, 1900). 30

——. Underground Railway. "Brief for Rapid Transit Board." (Case of Sun Publishing Co. v. Rapid Transit Board.) Boardman, Albert B. and Edward M. Shepard. New York, Jan. 1897. 120 pp. 31

——. Underground Railway. "The Contract for the New York Rapid Transit Railway." Engng. News 42:336 (Nov. 23, 1899).

——. Underground Railway. "Contracts and Quantities in the New York Rapid Transit Railway Work." Engng. N. 43:344 (May 24, 1900).

——. Underground Railway. Courts and Rapid Transit in New York. Arch. & Buil. 27:215 (Dec. 18, 1897); St. Ry. J. 14:44 (Jan. 1898). 32

——. Underground Railway. "Expert Opinion of the New Rapid Transit Proposition in New York." Fish, Stuyvesant. St. Ry. J. Supp. April, 1899. 33

——. Underground Railway. "The New York City Rapid Transit Proposition of the Metropolitan Street Railway Company." St. Ry. J. 15:230 (April, 1899). 34

——. Underground Railway. "Progress of Work on the Rapid Transit Tunnel, New York." Sci. Am. 83:326 (Nov. 24, 1900).

——. Underground Railway. "Rapid Transit and Politics." Outlook 58:212 (Jan. 22, 1898). 35

——. Underground Railway. "Rapid Transit in New York; Its Aid to Commerce and Finance." Clews, Henry. Arena Q. 1:33 (June, 1900). 36

——. Underground Railway. "The Real Dangerous Classes (Illustrated by the Rapid Transit Contract)." Hennessy, Charles O'Connor. Brooklyn Single Tax League, 1900. 12mo, 31 pp. 37

——. Underground Railway. "Specifications and Plans for the Building of." Bogart, John, and Parsons, W. B. Engng. Rec. Dec. 3, 10 and 17, 1892; Engng. News Dec. 1, 1892, p. 516; anon. Same Nov. 24, 1891, p. 499, Engng. Rec. Nov. 26, 1892, p. 411. 38

——. Underground Railway. "Structural Details of the New York Rapid Transit Tunnel Railway, General." Engng. News 42:380 (Dec. 14, 1899). 39

——. "Underground Electric Railway for New York City." Sprague, Frank J. Elec. Eng. March 4, 1891. 40

——. Underground Trolley Lines. (See under Metropolitan Street Railway above.)

"Trees, Shade, in the Streets of New York." Real Estate Rec. and Guide Feb. 24, 1894, p. 293. 41

Tunnels under East River and to New Jersey. (See Tunnels under Transit Facilities above.)

New York City—*Continued.*

Tweed Ring. Edwards, E. J. McClure's 5:132 (1895); Godkin, E. L. Nation 13:300 (1871), 17:349 (1873), 21:67 (1875); Nadal, E. S. Nation 14:284 (1872); Sears, E. I. Nat. Q. 31:116 (1875); Sterne, Simon. Nation 13:125 (1871), Law M. & Rev. n. s. 2:525 (1873); Wingate, Charles F. No. Am. 119:359 (1874), 120:-119 (1875), 121:113 (1875); anon. No. Am. 123:362 (1876). 42

——. Citizens' Association of New York. "Address to the Public: History of its work, the Department of Docks, of Health, the Fire Department." New York, Published by the Association, 1871. 34 pp. "Reform in New York City." 19 pp. 1870. "Correspondence showing a portion of its work," 1871. 47 pp. 43

——. "Dishonesty in New York Government." Parton, James. No. Am. 103:413 (1866). 44

——. "Financial Operations of the Tweed Ring." Ch. V, p. 119 E. D. Durand's "Finances of New York City." (See under Finance above.) 45

——. "Municipal Abuses." Tilden, Samuel J. Argument in the trial of W. M. Tweed and others. See his Writings and Speeches, 1885, Vol. I, pp. 516-551. 46

——. "The New York City 'Ring:' Its Origin, Maturity and Fall discussed." Tilden, Samuel J. Pamphlet n. d. 31 pp. 47

——. "Peculation Triumphant, being the record of four years' campaign against official malversation in the City of New York, 1871 to 1875." O'Conor, Charles. New York, Polhemus, 1875. 329 pp. 48

——. "Three Years' Struggle with Municipal Misrule in New York." Green, Andrew H. Comptroller's Report, Feb. 18, 1875, in response to certain resolutions of the Board of Aldermen. 31 pp. 49

Underground Railway, New York. (See under Transit Facilities above.)

"Unemployed in New York City, Five Months Work for." Lowell, C. R. Char. R. 3:323 (1894). 50

——. "Tammany's Million Dollar Fraud on the Workingmen." (Account of appropriation for park improvements designed to furnish work to unemployed in the winter of 1893-4.) New York, leaflet published by Citizens' Union, 1897. 24 pp. 51

Vacation Schools in New York. (See under Schools above.) 52

Valentine's Manuals. (See under History above.)

Vigilance League, City. (See Reform Organizations under General References above.)

Vital Statistics. (See under Statistics above.)

Water Supply of New York. Baker, M. N. Mun. Aff. 4:486 (Sept. 1900); Croes, James R. City Govt. 7:146 (Dec. 1899); Dalton, William. Mun. Engng. 17:167 (Sept. 1899); Freeman, J. R. J. Gaslight 76:108 (July 10, 1900); Milne, Peter. Fire & W. (Nov. 18, 1899); Phillips, Barnet. Hrprs. Wkly. 40:55 (1896); Thurber, F. B. No. Am. 167:90 (July, 1898); anon. Sci. 13:208 (1890); Fire & Water Nov. 14, 1896; Sci. Am. May 15, 1897; Fire & Water April 24, Nov. 6, Dec. 18, 1897; Engng. Rec. 40:285 (Aug. 26, 1899); Eng. (London) 88:264 (Sept. 15, 1899); Fire & W. 26:376 (Nov. 11, 1899); Engng. Rec. 40:335 (Sept. 16, 1899), 40:570 (Nov. 18, 1899), 41:338 (April 14, 1900), 41:373 (April 21, 1900), 41:609 (June 30, 1900); Railroad Gaz. 32:561 (Aug. 24, 1900). 53

——. "Water Supply, An Inquiry into the Conditions Relating to the Water Supply of the City of New York." Merchants' Association of New York. New York, Merchants' Association, 1900. 8vo, 627 pp. Maps and Charts. Cl. $3. Reviewed in Eng. Rec. 42:169 (Aug. 25, 1900). 54

——. "Outline of Plans with illustrations for furnishing an abundant supply of water to the City of New York." Maps and plans. (Source, Great Notch Reservoir in New Jersey.) New York, Published by John R. Bartlett and associates, 1888. 4to, 99 pp. 55

——. "Report upon New York's Water Supply with particular reference to the Need of Procuring Additional sources and their Probable Cost with Works Constructed under Municipal Ownership, made to Bird S. Coler, Comptroller." Freeman, John R. New York, City Comptroller, 1900. 8vo, 587 pp. Maps and Charts. 56

——. "Aqueduct, Report of the Committee appointed to investigate certain abuses on the new." (Fassett, J. S., Chairman.) N. Y. Senate Documents 1889, no. 57. 2094 and 1394 pp. 57

——. Brooklyn Water Supply, Scarcity of Water in Brooklyn. Milne, Peter. Fire & W. 26:225 (July 15, 1899); Waring, Geo. E. Hrprs. Wkly. Feb. 6, 1897; White, Alfred T. Engng. News Feb. 13, 1896; anon. Fire & W. 23:90 (March 19, 1898);

New York City—*Continued.*

Sanitarian 43:63 (July, 1899); Engng. Rec. 41:25 (Jan. 13, 1900). 58

——. Brooklyn. "History and description of the Water Supply." Brooklyn, 1896. 4to, 324 pp. Plates, tables. $10. 59

——. Brooklyn Water Supply, How Polluted. Sanitarian 38:453 (May, 1897).

——. "Brooklyn Water Supply, Impure Source of." Hrprs. Wkly. 39:828 (1895).

——. Brooklyn. "The Mt. Prospect Laboratory." Whipple, George C. Engng. N. 43:381 (June 7, 1900). 60

——. Brooklyn. "Report on Future Extension of Water Supply." White, Alfred T. Brooklyn, 1896. 4to, 76 pp. Plates, diagrams. $5. 61

——. Brooklyn. "Report of the Manufacturers' Association of Kings and Queens Counties on the Water Supply of Brooklyn." Eng. Rec. March 27, 1897. 62

——. "Brooklyn Water Works." Tuttle, Arthur S. Brooklyn, 1899. 8vo, 136 pp. 63

——. "Consumption of Water in Greater New York." Pruyn, Francis L. Engng. Rec. 39:322 (March 11, 1899). (See also under Waste below.) 64

——. "Croton Aqueduct Embankment." Landis, H. K. Engng. News 38:164 (Sept. 9, 1897). 65

——. "Croton Aqueduct, Preliminary Alinement of the New." Gould, E. Sherman. Engng. N. 43:357 (May 31, 1900). 66

——. "Construction and Capacity of the Croton Aqueduct, Memoir of the Cost, together with an account of the civic celebration of the fourteenth of October, 1842, on occasion of the completion of the great work, preceded by a preliminary essay on ancient and modern aqueducts." King, Charles. New York, 1843. 4to, 308 pp. 67

——. Croton Dam, New. Gowen, Charles S. Trans. M. Soc. Civ. Eng. 26:2 (Jan. 1900); anon. Sci. Am. 78:88 (Feb. 5, 1898); Engng. Rec. 38:27 (June 11, 1898), 39:113 (Jan. 7, 1899). 68

——. "Department of Water Supply." King, William F. Mun. Aff. 4:751 (Dec. 1900). 69

——. "Electricity, Purifying the Water Supply of New York by." Wetzler, Joseph. Hrprs. Wkly. 37:771 (1893). 70

——. "Future Water Supply of New York." Duane, Gen. Fire and Water Mar. 20, 1897; anon. Engng. News Feb. 13, 1896, 42:121 (Aug. 24, 1899), 44:120 (Aug. 23, 1900). 71

——. History. "The Water Supply of the City of New York from 1658 to 1895." Wegmann, Edward, Jr. New York, Wiley & Sons, March 5, 1896. 1st ed. 4to, 328 pp. 148 plates. Cloth, $10. 72

——. "Jerome Park Reservoir, Construction of the." Engng. Rec. 37:9 (Dec. 4, 1897), 41:148 (Feb. 17, 1900). 73

——. Ramapo Water Project. King, William F. Public Improvements 2:175 (Feb. 15, 1900); Rice, George S. Engng. Rec. 40:325 (Sept. 2, 1899); anon. Engng. Rec. 38:68 (June 25, 1898); Fire & W. 26:296 (Sept. 9, 1899); Nation 69:347 (Nov. 9, 1899). 74

——. "The Ramapo Water Contract, Report of a Preliminary Inquiry, and action taken and proposed, for a radical investigation." New York, Merchants' Assoc. Nov. 16, 1899. 50 pp. 75

——. "Underground Water in New York, The Ownership of." Engng. Rec. 39:447 (April 15, 1899). 76

——. "Underground Water Supplies, Borough of Brooklyn, New York City, The Latest Decision Affecting." Engng. N. 44:385 (Dec. 6, 1900).

——. Waste of Water, New York. Croes, J. James R. Mun. Engng. 17:366 (Dec. 1899); Freeman, John R. Mun. Engng. 18:324 (May, 1900), Engng. N. 43:260 (April 19, 1900); anon. Public Improvements 1:80 (July 1, 1899); Engng. N. 44:120 (Aug. 23, 1900); Mun. Engng. 13:344 (Dec. 1897). 77

Water Front, New York's. (See under Harbor Facilities above.)

"Wealth of New York." Gilroy, Thomas F. No. Am. 157:307, 403, 541 (1893). 78

"West Side of New York, Growth of the Upper." Hill, C. T. Hrprs. Wkly. 40:730 (1896). 79

Women's Work in New York City. (See under Charities, Sanitation, Settlements, also City History Club under History and Reform Organizations under General References.)

Working Women in New York. (See under Labor above.)

New York State.

Government, General References.

"Centralization of Administration in New York State." Fairlie, John Archibald. Columbia Univ. Studies in Political Science, Vol. 9, No. 3, New York, 1898. 8vo, 207 pp. Paper, $1. 80

Constitution of 1894, Articles of, on Municipal Administration: Art. 3, § 18, Local consent for street railways; Art. 5, § 9, Requiring civil service examinations; Art. 8, § 1, Legislature may create by special acts; Art. 8, § 10, Municipal indebtedness; Art. 10, § 2, Election of municipal officers; Art. 12, Government of cities and villages.

Documents of the New York Constitutional Convention of 1867. Nos. 109, 112, 114, 138, 173. Proceedings and Debates of the New York Constitutional Convention of 1867. 2926-3180 pp. 81

"The Municipal Code (New York State). As presented by the revision Commissioners and passed by the Legislature of the State." New York, Banks, 1894. 1700 pp. $3.50. 82

Preliminary report of the Senate Committee on cities pursuant to resolution of the Senate adopted January 20, 1890. (Fassett Committee.) N. Y. Senate Documents, 1891, No. 72. 135 pp. 83

——. Testimony taken before the Senate Committee on cities pursuant to resolution of the Senate adopted January 20, 1890. N. Y. Senate Documents, 1891. No. 80. 4 vols, 3650 and 967 pp. 84

Record of the New York Constitutional Convention of 1894. (This doubtless contains interesting debates on the subject but as there is no index to the six volumes the matter is practically buried.) 85

Report of the commission to devise a plan for the government of cities in the State of New York. (Tilden commission, Wm. M. Evarts, chairman.) N. Y. Assembly Documents, 1877, No. 68. 48 pp. 86

Report of the Commissioners appointed to propose legislation for cities of the second class. (Robert Earl, Chairman.) N. Y. Assembly Documents, 1896, No. 44. 8 pp. (This was accompanied by Assembly Bill No. 595, an act for the government of cities of the second class. Introduced by Mr. Speaker. (Not passed.) 87

"Second Class Cities, New Charter for." City Govt. 7:123 (Nov. 1899).

"State of New York: embracing historical, descriptive and statistical notices of cities, towns, villages, etc., with a complete list of the post offices, counties and county towns, etc." Kollock, Henry. New York, 1882. 304 pp. 88

State and Local Government of New York, with the text of its Constitution. Appendix to "Our Republic." Leach, Orlando. Boston, Leach, 1895. 139 pp. 35 cts. 89

Third Class Cities. Report of the Commissioners appointed to propose legislation for cities of the third class. (Robert F. Wilkinson, Chairman.) N. Y. Assembly Documents, 1896, No. 45. 8 pp. (This was accompanied by Assemb'y Bills No. 602, 832, an act for the government of cities of the third class. Introduced by Mr. Sanger. (Not passed.) 90

Charities. "State Charities Aid Association of the State of New York." Schuyler, Louisa Lee. p. 57 "International Congress," vol. III, 1893. See 43-99. 91

——. "Annual report of the State Board of Charities." XXXII Annual Report for 1898, Senate Doc. No. 19, Jan. 16, 1899. Albany, State Printers, 2 vols. 1252, 1151 pp. 92

Civil Service. "The New System in New York." Burt, Silas W. p. 47, Proc. Natl. Civil Service Reform League, Philadelphia, 1896. 93

——. "Civil Service Law." Pryor, James W. Ann. Am. Acad. Pol. Sci. 14:268 (Sept. 1899). 94

——. "Report of the New York Civil Service Commission." Published annually. XVI annual report for 1898, Assembly Doc. No. 55, March 3, 1899. Albany, State Printer, 912 pp. 95

Crime. (See under Police below.)

"Election Law of the State of New York, with notes and instructions." McDonough, John T. N. Y. and Albany, Wyncoop, H. C., & Co., 1899. 175 pp. 96

——. "Code of Election Laws of the State of New York with annotations, forms, instructions, etc." Silvernail, William H. New York, Banks & Bros., 1896. 8vo, 252 pp. 97

——. "Primary Elections." Ann. Am. Acad. Pol. Sci. 11:420 (May, 1898).

New York State—*Continued.*

——. "Primary Election Legislation in the State of New York." Stürcke, Louis. New York, Wynkoop, Hallenbeck, Crawford Co., 1898. Pamphlet, 116 pp. 98

——. "Primary Legislation in the State of New York." Lauterbach, Edward. N. Y. Conference on Practical Reform of Primary Elections, p. 109. Chicago, Hollister, 1898. 8vo, 150 pp. Paper. 99

——. "The New York Primary Election Law." Branson, Walter J. Ann. Am. Acad. Pol. Sci. 11:381 (May, 1898). 100

——. "Proposed Primary Laws in New York." Ford, John. N. Y. Conference on Practical Reform of Primary Elections, p. 116. Chicago, Hollister, 1898. 8vo, 150 pp. Paper. 1

——. "Report of the State Superintendent of Elections." Issued annually. First annual report for 1898, Assembly Doc. 20, Jan. 12, 1899. Albany, State Printer, 172 pp. 2

Elmira Reformatory. (See under Police below.)

Excise. (See under Liquor Problem below.)

Factory Inspection. (See under Labor below.)

Finances. Ford Franchise Tax Law. Hodge, J. Aspinwall, Jr. St. Ry. J. 15:532 (Aug. 1899); Seligman, Edwin R. A. Q. J. E. 13:445 (July, 1899); Warner, John De Witt. Mun. Aff. 3:269 (June, 1899); anon. Arch. & Buil. 30:137 (May 6, 1899); City Govt. 6:141 (June, 1899); Prog. Age 17:240 (June 1, 1899); Ann. Am. Acad. Pol. Sci. 14:136 (July, 1899); Other Side 1:127 (Sept. 16, 1899). 3

——. Ford Bill. "Taxation of Corporate Franchises, argument against the Ford Bill in behalf of the Rapid Transit and Electric Light Companies of Brooklyn." Collin, Charles A. Before Senate Comm. on Taxation and Retrenchment, March 2, 1899. Pamphlet 31 pp. 4

——. "Laws of the State of New York relating to the assessment and collection of taxes, including the statutes of 1880." New York, S. A. Wilder & Co., 1880. 8vo, 325 pp. 5

——. "Local Taxation, (Report of the) New York State Commission to revise the Laws for Assessment and Collection of Taxes." New York, Harper & Bro., 1871. 8vo, 74 pp. 6

——. "Phases of Taxation in New York State." Roberts, James A. Ind. 50:141 (Feb. 3, 1898). 7

——. "Report of the committee on banks on the financial condition of the cities of the State." 8 pp. N. Y. Senate Documents, 1857, No. 54. 8

——. "Report of the Commissioners appointed to revise the laws for the assessment and collection of taxes in New York in 1871." (D. A. Wells.) (This report was reprinted by the Cobden Club at Manchester, Eng. in 1871, paper, 142 pp. 2s. 6d.) 9

——. "Special message from the Governor [Tilden] in relation to city debts and taxes, leading to the appointment of the Tilden Commission." N. Y. Senate Documents, 1875, No. 90, 20 pp. 10

——. "Report of the clerk of the senate in answer to a resolution of the senate passed March 16, 1882, in relation to separate valuations of real and personal property for local taxation in cities of this State since 1860." N. Y. Senate Documents, 1882, No. 95, 25 pp. 11

——. "Reports of the Comptroller of the State of New York." Albany, State Printer. Published annually. Report for 1899, 710 pp. 12

——. "Reports of the State Board of Tax Commissioners." Annual Report for 1898, Senate Doc. No. 9, Feb. 7, 1899. Albany, State Printers, 330 pp. 13

——. "Reports of the State Treasurer." Annual Report for 1898, Senate Doc. 3, Jan. 4, 1899, Albany, State Printer, 322 pp. 14

"History of the State of New York, 1609-1691." Brodhead, John Romeyn. New York, Harper, 1871-4. 8vo, 2 vols, $6. 15

——. "History of New Netherlands or New York under the Dutch." O'Callaghan, Edw. B. New York, Appleton, 1848. 2 vols. 8vo. $6. 16

——. "The History of Political Parties in the State of New York, 1789-1847." Hammond, Jabez D. Cooperstown, H. & E. Phinney, 4th ed., 1846. 3 vols. 594, 749, 553 pp. 17

——. "Thirty Years of New York Politics up to date." Breen, Matthew P. New York, Matthew P. Breen, 1899. 8vo, 843 pp. Cloth, $3. 18

——. "Documentary History of the State of New York." O'Callaghan, E. B. Arranged under direction of Christopher Morgan, Secretary of State. Albany,

New York State—*Continued.*

Weed, Parsons & Co., Public Printers, 1849. 4 vols, 8vo, 786, 1211, 1215, 1144 pp. 19

Labor. "Report of the Bureau of Labor Statistics." Published annually. XVIth Annual Report for 1898, Assembly Doc. No. 70, 1899. Albany, State Printer. 1179 pp. 20

——. "Report of the Factory Inspector of the State of New York." Published annually. XIIIth Annual Report for 1898, Assembly Doc. No. 51, Jan. 23, 1899. Albany, State Printer. 857 pp. 21

Lighting. "New York's Need of a Gas Commission." Mun. & Ry. Rec. 4:13 (Jan. 15, 1899).

——. "Gas Statistics, New York State." Prog. Age 16:468 (Oct. 1, 1898).

Liquor Problem. "The Operation of the New York Liquor Tax Law." p. 338 "Liquor Problem in its Legislative Aspects." Wines, F. H. and J. Koren. Boston, Houghton, M. & Co., 1897. 349 pp. $1.25. 22

——. "Report of the State Commissioner of Excise." Published annually. Third Annual Report for 1898, Senate Doc. No. 18, Jan. 16, 1899. Albany, State Printers. 599 pp. 23

——. "Report of the Special Committee of the Senate appointed to investigate the working of the Liquor Tax Law." N. Y. Senate Doc. 41, March 12, 1897. Albany, State Printers. 1146 pp. 24

Municipal Control, Municipal Ownership. "The Ownership and Operation of Electric Light and Power, Gas and Water Plants." Part II, pp. 497-601 of the Fifteenth Annual Report of the Bureau of Labor Statistics of the State of New York for the year 1897. 497 pp. Albany, Wynkoop, H. C. Co., 1898. 25

——. "Report of the Committee appointed by the Assembly to investigate the question of municipal ownership of the street and elevated railroads of the various cities of the State." (S. Frederick Nixon, Chairman.) N. Y. Assembly Documents, 1896, No. 53. 24 pp. 26

"Party Government in the Cities of New York State." Wilcox, D. F. Pol. Sci. Q. 14:681 (Dec. 1899). 27

Police, Crime, etc. "The State Constabulary Bill." Outlook 66:872 (Dec. 8, 1900).

——. "Report of the Secretary of State on statistics of crime in the State of New York." Issued annually. Report for 1896, Assembly Doc. 82, April 21, 1897. Albany, State Printers. 458 pp. 28

——. "New York State Reformatory in Elmira." Winter, Alexander. London, Swan, S. & Co., 1891. 8vo, 172 pp. 2s. 6d. 29

——. "Year Book of the New York State Reformatory." Published annually. XXIII issue for 1898. Albany, State Printers, 1899. 187 pp. 30

Primary Elections. (See under Elections above.)

Sanitation. "Report of the State Board of Health." Published annually. XIXth Annual Report for 1898, N. Y. Assembly Doc. No. 73. Albany, State Printer. 771 pp. 31

Savings Banks, etc. "Report of the Superintendent of Banks relative to Building and Loan and co-operative savings and loan associations." Published annually. IXth Annual Report for 1898, Assembly Doc. 52, March 1, 1899. Albany, State Printer. 440 pp. 32

Schools. "Report of the State Superintendent of Public Instruction." Published annually. XLVth Annual Report for 1898, Assembly Doc. 56, March 6, 1899. 1174 pp. 33

Taxation. (See under Finances above.)

Transit Facilities. "The Railroad Laws of the State of New York analytically arranged with judicial decisions, a table of railroad charters and local enactments." McMaster, R. Bach. New York, Baker, Voorhis & Co., 1872. 12mo, 341 pp. 50 cts. 34

——. "Reports of the Board of Railroad Commissioners of the State of New York." Published annually. XVIIth Annual Report for 1899, Senate Doc. No. 10, Jan. 10, 1900. Albany, State Printers. 2 vols, 441, 1532 pp. (These reports contain much important matter on street railroads in cities.) 35

Water Supply. "Purchase of Private Water Plants in New York, The." Engng. Rec. 38:340 (Sept. 17, 1898).

New Zealand.

"Cities and Government, New Zealand." Krout, Mary H. Chaut. 29:480 (Aug. 1899); Stout, Robert. Open Court 11:577 (Oct. 1897). 36

——. Local and Municipal Government in New Zealand. Chs. II, X, XVIII, XXXVII, XXXIX, XLIII, "The Government of Victoria, Australia." Jenks, Edward. London, Macmillan, 1891. 8vo, 403 pp. 14s. 37

"Referendum in Australia and New Zealand." Tomn, Lillian. Contemp. 72:242 (Aug. 1897). 38

Street Railways. "Possibilities for Electric Traction in New Zealand." Cicott, Frank X. St. Ry. Rev. 8:782 (Nov. 15, 1898). 39

"Taxation in the Australian Colonies and New Zealand, Local Government and." Dilke, C.; Ware, Thomas Webb; Archer, W. H. p. 233 "Local Government and Taxation," J. W. Probyn, editor. New York, Cassell, 1875. 5s. 40

Niagara, N. Y.

History. "Early History of the Falls and City." St. Ry. R. 7:634 (Oct. 15, 1897).

"Street Railways of Niagara." St. Ry. R. 7:650 (Oct. 15, 1897).

——. "The Electric Railway of the Niagara River Region." St. Ry. J. 13:585 (Oct. 1897); Ry. World 7:35 (Feb. 1898). 41

Nice, France.

Garbage Disposal. See 56-40b.

Sewage Disposal. See 56-40a, 40b.

Transit Facilities. "Electric Tramways of Nice and of the Littoral." Ty. & Ry. W. 9:184 (May 10, 1900).

Noises, City.

"Suppression of City Noises." Hubert, P. C. No. Am. 159:633 (1894). 42

"The Plague of City Noises." Girdner, J. H. No. Am. 163:296 (1896). 43

"To Abate the Plague of City Noises." Girdner, John H. No. Am. 165:460 (Oct. 1897). 44

Nominating Systems. (See under **Elections.**)

Non-Partisanship in Municipal Elections. (See **Parties and Party Politics in Cities, etc.**)

Norfolk, Va.

History, description and statistics of Norfolk, Va., in 1880. Census. See 1-7.

Water Works. "The Norfolk, Va., Filter Plant." Weston, Edmund B. Fire & W. 27:170 (May 19, 1900), 27:178 (May 26, 1900), City Govt. 9:14 (July, 1900); Engng. Rec. 41:470 (May 19, 1900); Engng. N. 43:346 (May 24, 1900); pp. 108-120 in Proc. of the 20th Annual Meeting of the American Water Works Assoc., Richmond, Va., May 15-18, 1900. 8vo, 216 pp. Cl. $1. 45

Northampton, Eng.

"Architecture of our Large Provincial Towns." Builder April 24, 1897. 46

"The Development of Northampton." Mun. J. & London 8:1139 (Oct. 20, 1899).

North Carolina.

"Water Supplies in North Carolina, Legislation for the Protection of Public." Engng. News 42:5 (July 6, 1899). 47

"**North Tonawanda, N. Y.**, Water Works, The." Barrally, T. W. Engng. Rec. 38:515 (Nov. 12, 1898). 48

Norway.

Liquor Problem. "Local Option in Norway." Wilson, T. M. London, Cassell, 1891. 8vo. 1s. 49

Local and Municipal Government in Norway. Demombynes. Vol. I, pp. 162-185. See 2-11. 50

"**Norwich [Eng.]**, Electric Tramways." Ty. & Ry. W. 9:577 (Dec. 6, 1900). 51

Nottingham, Eng.

Garbage Disposal. See 56-40b.

"Housing, Nottingham and Municipal." Mun. J. & London 8:1265 (Nov. 24, 1899). 52

"Sewerage of Nottingham, England, The." Fuertes, James H. Engng. Rec. 38:142 (July 16, 1898); Mun. J. and London 8:107 (Jan. 26, 1899). See also 56-40b. 53

Transit Facilities. "Nottingham Municipal Tramways." London 6:667 (Aug. 5, 1897); Ry. World 7:155 (May 5, 1898); Brown, H. Ty. and Ry. World 8:408 (Oct. 5, 1899); McFarland, S. C. Cons. Rep. 43:183 (June, 1900). 54

Nuremburg, Germany.

Garbage Disposal. See 56-40b.

History. "Mediæval Towns: the Story of Nuremberg." Headlam, Cecil. New York, Macmillan Co., 1899. 16mo, 303 pp. Cloth, $1.50. 55

Sewage Disposal. See 56-40b.

Streets. "Noch einmal die Projektirte Ringstrasse Nürnbergs." Deutsche Bauz. p. 500, 1879. 56

——. "Ein Entwurf zur Anlage einer Ringstrasse an Stelle der alten Vertheidigungswerke Nürnbergs." Deutsche Bauz. pp. 453, 481, 1879. 57

"**Nyack, N. Y.**, Slow Sand Filtration." Engng. Rec. 41:397 (April 28, 1900). 58

"**Oberlin, O.**, Sewerage System of." Engng. News March 8, 1894.

"**Oconomowoc [Wis.]**, Municipal Lighting for." Meissner, Gustav. Municipality vol. I, no. 4, p. 15 (Oct. 1900). 59

Octrois. (See under **Finance.**)

Ohio.

"Charities in Ohio Cities, Plea for Associated." Gunkle, L. B. City Govt. 8:68 (March, 1900). 60

City Government. "Municipal Corporations in the State of Ohio." Peck, Hiram D. Cincinnati, Robert Clark & Co., 3d edition, 1892. 983 pp. $4. 61

——. "Municipal Government in Michigan and Ohio." Wilcox, Delos F. New York, Macmillan, 1896. 8vo, 184 pp. Paper $1. 62

——. Municipalities, Ohio. Blandin, E. J. p. 454 Proc. Second Natl. Conf. for Good City Govt., 1895, see 6-18b; Cassat, Alfred C. pp. 192-198 Proc. of the Louisville Conference for Good City Govt., 1897. Reprinted in City Govt. 2:147 (May, 1897); Ghent, W. J. Ind. 51:3427 (Dec. 21, 1899); Smith, Rufus B. p. 138 Proc. Natl. Civil Service Reform League, Philadelphia, 1897. 63

——. "Municipal Code of Ohio, The Revised." Pugh, David F.; Kibler, Edward. Columbus, O., Herr, 1899. 8vo, 280 pp. 64

——. "Municipal Government, articles in connection with the report of the Ohio municipal code commission." Foote, Allen R. Chicago, Public Policy Publishing Co., 1900. Pamphlet, 111 pp. 65

——. Report of the Ohio Code Commission. Kibler, Edward. 8vo, 17 pp. City Govt. 6:47 (March, 1899), Other Side 1:68 (Aug. 12, 1899), Mun. Aff. 3:528 (Sept. 1899), pp. 188-198 in Proc. of the Columbus Conf. for Good City Govt., 1899, see 6-18f; Blandin, E. J. pp. 199-206, Proc. of the Columbus Conf., see 6-18f; anon. Other Side 1:66, 221 (Aug. 12, Nov. 11, 1899); Stewart, Gilbert M. Public Policy 2:139 (March 3, 1900). 66

"Commerce, The Work of the Ohio State Board of." Johnson, Thomas L. p. 192, Proc. Third Natl. Conf. for Good City Govt., 1896. See 6-18c. 67

"Employment Offices in Ohio, Free Public." Ayres, P. W. p. 124 International Congress, Vol. I, 1893. See 43-99. 68

"Indebtedness in Ohio, Municipal." Mann, Wilbur E. Public Policy 2:108 (Feb. 17, 1900). 69

Water Supply. "Water Department Statistics, Ohio." Brennan, John P. City Govt. 6:55 (March, 1899). 70

——. "Preliminary Report of an Investigation of Rivers and Deep Ground Waters of Ohio as Sources of Public Water Supplies." Cleveland, Ohio State Board of Health, 1898. 8vo, 259 pp. 71

"**Old Dover, N. H.**" Garland, Caroline H. New Eng. M. 17:97 (Sept. 1897). 72

Oldenburg, Street Cleaning. "Wasserleitung zur Spülung von Strassengossen in Oldenburg." Noack, Fr. Gesund. Ing. 20:210 (July 15, 1897). 73

"**Oldham [Eng.],** Sewage System of." Wilkinson, James B. San. Rec. 23:392 (May 5, 1899). 74

Oliva, Germany.
Municipal Acetylene Plant. "Die Acetylen Stadtanlagen in Oliva." Wolff, Paul. Zeitschr. f. Klein. u. Strassenbahnen Jan 16, 1899. 75

Omaha, Neb.
History, description and statistics of Omaha, Neb., in 1880. Census. See 1-7.
"Municipal Condition of Omaha, Neb." Powell, Rev. Gregory J. p. 418, Proc. Second Natl. Conf. for Good City Govt. Published by the National Municipal League, Philadelphia, 1895. 76
"Paving Specifications of Omaha, The New." Rosewater, Andrew. Mun. Engng. 13:136 (Sept. 1897). 77
"Police Board, State vs. Local." Ann. Am. Acad. Pol. Sci. 12:448 (Nov. 1898). 78
"Tax Commissioner." Rosewater, Victor. Ann. Am. Acad. Pol. Sci. 11:429 (May, 1898). 79
"Water Works of Omaha. Veto Message of the Mayor." Broatch, W. J. City Govt. 2:20 (Jan. 1897); Eng. Rec. (Jan. 9, 1897); Mansfield, Howard. Eng. Rec. (Feb. 6, 1897). 80
——. "Municipalization of Water Works." Lobingier, Charles S. Ann. Am. Acad. Pol. Sci. 14:384 (Nov. 1899). 81

Ontario.
"Growth of Municipal Institutions in Ontario, The." Biggar, C. R. W. Canada Law J. Jan. 2, 1897. 82
Municipal Institutions. "First Report of the Commission on Municipal Institutions appointed by the Government of the Province of Ontario." Toronto, 1888. 233 pp. 83
——. "Municipal System of Ontario." Bourinot, J. G. J. H. Univ. Studies No. 1; James, C. C. Appendix to the Rep. of the Ontario Bureau of Industries, p. 16, 1898. 84

Opera Houses, Municipal. (See under **Theatres and Opera Houses, Municipal.**)

"**Orange [N. J.]** Water Works Extension, The." Engng. Rec. 42:394 (Oct. 27, 1900). 85

"**Orchestras, Municipal.**" Mun. J. & London 8:1099 (Oct. 6, 1899). 86

Origin of Cities and Towns. (See under **Population.**)

"**Osnabruck [Ger.]** Die Wohnungsverhältnisse der ärmeren Volksklassen in der Stadt." Brünning. Pp. 129-151 Hft. 31 Schr. d. Ver. f. Socialpolitik. 87

Ostend, Belgium, Housing. "Stadterweiterung von Ostend." Stübben, J. Zeitschr. f. Bauw. p. 229, 1879. 88

Oswestry, Eng.
"Sewage at Oswestry, The Bacterial Treatment of." Lewis, W. A. Aylmer. Surveyor 17:20 (Jan. 12, 1900); Engng. Rec. 41:226 (March 10, 1900). 89

"**Ottawa [Canada],** The Main Drainage." Engng. Rec. 40:600 (Nov. 25, 1899).

"**Overbrook, N. J.,** Septic Tank at." Owen, James. Engng. Rec. 40:669 (Dec. 16, 1899). 90

Oxford, Eng.

"Charities, Municipal, of Oxford, England." Spooner, W. A. Econ. R. April, 1897. 91

History. "Oxford." Boase, C. W. London, Longmans, 1887. Historic Towns Series. 8vo, 3s. 6d. (For other references see p. 358 Gross' "Bibliography of British Municipal History.") 92

Padua, Italy.

"Architecture and Arts of Padua." Mereu, H. Am. Arch. Feb. 27, 1897. 93

Municipal Government. "La Gouvernement Municipal de Padoue (Italie.)" Einaudi, Luigi. R. Municipale 2:1585 (Sept. 23, 1899), Mun. Aff. 3:215 (June, 1899). 94

Palermo, Italy.

City Government. "Sulle condizioni demographiche, economiche et amministrative della città di Palermo nel 1891." Maggiore-Perin. Palermo, Virzi, 1895. 140 pp. 95

"Theatre, The New Municipal, at Palermo." Builder Jan. 4, 1896. 96

"**Panama,** Water Works in." Gudger. Cons. Rep. 62:50 (Jan. 1900). 97

"**Paraguay,** Cities of." Ruffin, John N. Cons. Rep. 62:35 (Jan. 1900). 98

Paris.

Government, General References, Unclassified.

"Administration de la ville de Paris et du Département de la Seine." (Principal topics discussed: History of Paris pp. 1-30, Ch. I-III; Population pp. 37-39, Ch. V; Administrative Organization of the City and Department pp. 41-96, Ch. VI-VII; Finances pp. 97-250, Ch. VIII-XI; Streets and Highways pp. 251-329, Ch. XII-XXI; Street Cleaning and Watering pp. 351-362, Ch. XXII; Parks, Gardens, Promenades pp. 363-377, Ch. XXIII; Street Franchises, pp. 377-384, Ch. XXIV; Street Cars, Omnibuses, Seine River Boats, etc. pp. 390-428, Ch. XXVI-XXVII; Lighting pp. 429-455, Ch. XXVIII; Water Supply pp. 459-484, Ch. XXX; Sewage Disposal pp. 485-509, Ch. XXXI-XXXII; Markets pp. 557-581, Ch. XXXVII; Slaughter Houses, Abattoirs, Cattle Markets pp. 583-598, Ch. XXXVIII; Food Inspection pp. 618-626, Ch. XLII; Burial pp. 630-655, Ch. XLIII-XLIV; Public Schools and Education pp. 671-759, Ch. XLVI-LIV; Police pp. 761-792, Ch. LV; Prisons pp. 793-799, Ch. LVI; Fire Protection pp. 801-819, Ch. LVII; Public Health pp. 823-849, Ch. LVIII-LX; Charity pp. 881-951, Ch. LXIII-LXV; Pawn Shops (Monts de Piété) pp. 953-963, Ch. LXVI-LXVIII). Block, Maurice. Paris, Guillaumin et Cie., 1884. 8vo, 1032 pp. 99

"Administration de Paris." Part III of Fernand Bournon's "Paris, Histoire, Monuments, Administration." Paris, Armand Colin et Cie., 1888. 384 pp. 7 fr. 100

"Administration de la ville de Paris et du département de la Seine." de Pontich, H. (Publiée sous la direction de Maurice Block.) Paris, Guillaumin et Cie., 1884. 1032 pp. 1

Government of Paris. Burnell, G. R. J. Soc. Arts 13:240 (1865); Charnay, Maurice. Mouvement Soc. 2:482 (April 15, 1900), 2:533 (May 1, 1900); Dilke, C. W. J. Statis. Soc. 39:299 (1876); Gigot, A. Fortn. 39:305 (1883); Guyot, Yves. Contemp. 43:439 (1883); Laugel, A. Nation 28:147, 178, 214, 263 (1879); Lavallée, Albert. R. Gén d'Administration 69:385 (Dec. 1900); Shaw, Albert. Cent. 42:449 (1891); anon. Surveyor 17:649 (June 15, 1900), 17:672 (June 22, 1900), 17:704 (June 29, 1900), 18:36 (July 13, 1900). 2

——. "Du Régime Municipal de Paris." Artigues, George. Paris, Arthur Rousseau, 1898, 8vo, 193 pp. 3

History of Paris City Government. (See under History below.)

Life in Paris. "La Vie à Paris." Clareti, J. Paris, Fasquelle, 1898. 18mo, 500 pp. 3.50 fr. 4

"Municipal Trip to Paris." San. Rec. Supp. June 15, 1900. 5

"New York and Paris Contrasted. Height and Character of Buildings, Garbage Removal, etc." Real Estate Rec. & Guide April 7, 1894, p. 529. 6

"L'Organisation Municipal de Paris et de Londres, présent et avenir." Guyot, Yves. Paris, Marpont et Flammarion, 1883. 100 pp. 1 fr. 50c. 7

"Paris the Magnificent." Ragan, H. H. Chaut. June, 1897. 8

"Paris: Notable Municipal Features." Dohrmann, F. W. Mchts. Assoc. Rev. Vol.

Paris—*Continued.*

2, No. 24, p. 1 (Aug. 1898). 9

"Paris, Organisation Municipale, Institutions Administratives." (Entretiens Familiers sur l'Administration de Notre Pays.) Block, Maurice. Paris, Hetzel et Cie., 1881. 2 vols. 128 and 128 pp. (Topics same as in his Administration de la Ville de Paris, treatment briefer and colloquial.) 128 pp. 3 fr. 10

"Paris, ses Organes, ses Fonctions et sa Vie dans le seconde moitié du XIX siècle." du Camp, Maxime. Paris, Hachette, 1875. 5 vols. 37 fr. 50c. (Chap. XIII, La Police; XV, Les Prisons; XVII La Prostitution; XVIII to XXIII (Vol. IV), L'Assistance Publique; Chap. XXIV, Le Mont de Piété; XXVIII, Le Service des Eaux; XXIX, L'Eclairage; XXX, Les Egouts; XXXIII, Les Cimetières; XXXIV, Les Bibliotheques.) 11

"Paris of To-day." Whiteing, Richard. New York, Century Co., 1900. 4to, 249 pp. Cl. $5. 12

"Paris, the Typical Modern City." Shaw, Albert. pp. 1-146 "Municipal Government in Continental Europe." See 1-6. 13

"Parisian Pastimes." Whiteing, Richard. Cent. 40:87 (May, 1900). 14

"Recueil annoté des lois et décrets sur l'administration communale et départementale, comprenant les textes speciaux a l'administration de la ville de Paris et du département de la Seine." Souviron, Alfred et Pontich, Henri de. Paris, Muzard et fils, 1889. 8vo. 10 fr. 15

Abattoir, The New Paris. "Das neue Schlachthaus der Stadt Paris." Oesterr. Monatschr. f. d. Oeffent. Baudienst June, 1897. 16

"Artistic Paris." Whiteing, Richard. Cent. 60:400 (July, 1900). 17

——. "Monuments Elevés par la ville, 1850-1880, Paris." Narjoux, Félix. Paris, Morel, 1882. 5 vols. 18

Baths at Rouen and Paris, Public. "Les Bains-Douches à bon marché à Rouen et à Paris." Sarrey, Paul. Génie Civil May 6, 1899. 19

Building and Street Regulations. "Dictionnaire des Usages et Réglements de Paris et du département de la Seine en matière de location, constructions, voirie, etc." Emion V. et Ch. Bardies. Paris, Larose et Forcel, 1893. 4 fr. 20

Burial, Cremation, etc. "Cremation at Père la Chaise." de Lautreppe, Lecoq. Nation 49:190 (1889); anon. Am. Arch. 23:41 (1887). 21

——. "De la création des maisons ou dépots mortuaries de Paris." du Mesnil, O. Ann. d'Hyg. 2:515 (1879); 11:331 (1884.) 22

Charity. "Assistance Publique à Paris." D'Echérac et Nielly. p. 210, Vol. I, Say's "Dictionnaire des Finances." See 2-12. 23

——. "L'Assistance Publique à Paris." Feillet, Paul. Paris, Berger, Levrault et Cie., 1888. 132 pp. 3 fr. 24

——. "L'Assistance Publique en 1900." Paris, Administration Générale de L'Assistance Publique à Paris, 1900. 4to, 834 pp. Paper. 25

——. "Paris et L'Assistance Publique." Lefevre, A. R. Paris, No. 13, p. 71 (July 1, 1899). 26

——. Beggars. "Paris qui mendie, mal et remède." Paullian, Louis. Paris, Ollendorf, 1893. 3 fr. 50c. (Translated into English by Lady Herschell. London, Edw. Arnold, 1897. 8vo, 192 pp. 60 cts. Reviewed by Alexander Johnson. Char. R. 6:257 (May, 1897). 27

——. "Blind, Paris and the." Price, E. C. Gentlemen's Magazine Aug. 1898. 28

——. "Le Bureau de Bienfaisance central de Paris." Bompard, Raoul. R. Pol. e. Par. 24:360 (May 10, 1900). 29

——. "Charities of Paris." Lincoln, G. W. Church R. 44:82 (1884). 30

——. "La Charité à Paris, des diverses formes d'assistance dans le département de la Seine." Lecour, C. J. Paris, Asselin et Cie., 1876. 3 fr. 50c. 31

——. Children, Dependent. "Enfants assistés of Paris." Cooper, Edward H. New R. May, 1897. 32

——. "Les Enfants assistés dans le Département de la Seine." Napias, Henri. Revue Municipale 3:1659 (Oct. 28, 1899). 33

——. "Christian Work in Paris Slums." Tooley, S. A. Quiver May, 1900. 34

——. Insane, Care of. "Les Aliénés dans le Département de la Seine." Rebeillard, E. R. Municipale 3:1743 (Dec. 2, 1899), 6:1755 (Dec. 9, 1899), 3:1772 (Dec. 16, 1899). 35

Paris—*Continued.*

——. Insane. "L'Assistance des Aliénés devant la Conseil Général de la Seine." Marie. A. R. Municipale 3:1963 (March 10, 1900). 36

——. "Outdoor Relief of Paris, The Department of Public." Carstens, C. C. Ann. Am. Acad. Pol. Sci. 16:167 (July, 1900). 37

——. "Poverty in Paris." Hooper, L. H. Appletons 11:716 (1873). 38

Conduits. "Underground Paris." Mun. J. & London 9:47 (Jan. 19, 1900). 39

——. "Electric Conduit Construction in Paris." Connett, A. N. St. Ry. J. 15:845 (Dec. 1899). 40

Council, Municipal. "Quatre années au Conseil Municipal de Paris." Cochin, Denys. Paris, C. Levy, 1883. 3 fr. 50c. 41

——. "Dix-neuf ans du Conseil Municipal élu de la ville de Paris, 23 Juillet, 1871, Mai, 1890. Des faits." Chassagne. Paris, Dentu, 1890. 92 pp. 2 fr. 42

——. "L'Oeuvre du conseil municipal de Paris." Strauss, P. Le Grande Revue, April 1, 1900. 43

Courts. "La Cour d'Assises de la Seine." Cruppi, J. Revue d. Deux Mondes June 15, 1897. 44

Elections. "Le Vote de Paris: Les Elections Municipales et le Socialisme." La Semaine (Paris), May 10, 1900. 45

——. "Les Elections de Paris et le Parti Socialiste." Rouanet, Gustave. R. Soc. 31:716 (June, 1900). 46

"Finances of Paris, 1879." Laugel, A. Nation 28:281, 315 (1879). 47

——. Berlin and Paris. "Die Gemeindefinanzen von Berlin und Paris." Rowe, Leo S. Jena, Gustav Fischer, Pubs. Economic Seminary at Halle, 1893. 236 pp. 48

——. "Financial Condition." (Berlin and Paris). Ann. Am. Acad. Pol. Sci. 12:311 (Sept. 1898). 49

——. Budget. "Le Budget de Paris." Veber, Adrien. R. Soc. 31:432 (April 1900). 50

——. Financial Claims of Paris and the Department of the Seine. "Les Revendications Financières de Paris et de la Seine." Strauss, P. Revue Municipale 3:1721 (Nov. 25, 1899). 51

——. "Les Finances de la Ville de Paris de 1798 à 1900, suivies d'un essai de statistique comparative des charges communales des principales villes françaises et étrangères de 1878 à 1898." Cadoux, Gaston. Paris, Berger, 1900, 8vo, 831 pp., 6 tables, 15 fr. 52

——. Management of Communal Property. "La Regie des Propriétés Communales de la Ville de Paris." R. Municipale 3:1891 (Feb. 3, 1900). 53

——. "Municipal Taxation." Ann. Am. Acad. Pol. Sci. 13:132 (Jan. 1899).

——. "Octroi Taxes in Paris." Beaulieu, Paul Leroy. Bank M. (N. Y.) 35:105 (1881). 54

——. "La Question de l'Octroi à Paris." Veber, Adrien. Rev. Soc. 28:544 (Nov. 1898). 55

——. "La Suppression des Octrois et le Conseil municipal de Paris." Guyot, Yves, 1880. 18mo. Pamphlet. (See also Octrois under **Finance, France**). 56

"Fires in London and Paris during 1891." J. Statis. Soc. 55:137 (1892).

——. Fire at the Paris Bazaar. Statham, H. H. Engng. M. 13:504 (July 1897); anon. Builder (London) May 8, 1897; Engineering (London) May 14, 1897. 57

——. "The Sapeurs-Pompiers of Paris." Fire & W. 28:26 (July 28, 1900).

Food Supplies of Paris. "L' Alimentation de Paris." Funck-Brentano, Th. Revue de Paris, 15 Mai, 1895, p. 381. 58

Garbage Disposal. "Notice Monographique sur les Ordures Mènagéres de Paris." Vincey, Paul. Bull. Soc. d'Encour. Aug. 1900. 59

Gas Supply of Paris. (See under Lighting).

Harbor Facilities. "Les Quais de Paris." Escudier, Paul. R. Municipale 3:1737 (Dec. 2, 1899). 61

"Haussmann, Memoires du Baron." (Contains an account of the transformation of Paris). Haussmann, Georges Eugène. Paris, Victor Havard, 1890. 3 vols. 587, 576 and 567 pp. 22 fr. 50c. 62

"Higher Life of Paris, The." Wagner, Charles. Outlook, May 1, 1897. 63

History. "Paris as an Historic City" and "The Transformation of Paris." Chs. XIII. and XIV., pp. 368-411, in Frederic Harrison's "The Meaning of History." New York, Macmillan, 1894. 8vo, 482 pp. $2.25. 64

Paris—*Continued.*

——. "Etudes sur l'administration de la Ville de Paris et du département de la Seine." Say, Horace. Paris, Guillaumin, 1846. 8vo, 8 fr. 65

——. "De l'organisation municipale de Paris sous l'ancien régime." Robiquet, Paul. Paris, Berger-Levrault, 1881. 8vo, 1 fr. 50c. 66

——. "Paris municipal au tableau de l'administration de la Ville de Paris depuis les temps les plus reculés jusqu'à nos jours." de Laborde, Alexandre Louis Joseph. Paris, F. Didot. 1833. 8vo, 120 pp. 67

——. "Paris, son administration ancienne et moderne, étude historique et administrative." Lazare, Louis. Paris, Ledoyen, 1856. 12mo. 2 fr. 50c. 68

"Hotel de Ville, Paris, The." Gevaert, Fierens. R. de l'Art 6:475 (Dec. 10, 1899). 69

Housing. "L'Hygiène à Paris, l'Habitation du Pauvre." du Mesnil, O. Paris, Baillière et Fils, 1890. 223 pp. 3 fr. 50c. 70

——. "A Citizen's Household in Paris." Jagow, Eugen von. Chaut. 26:428 (Jan. 1898). 71

——. Lodging Houses. "Au Pays de Misère: Les Bouges de Paris." Loliée, F. R. Revs. 29:129 (April 15, 1899). 72

——. Lodgings for Workmen. "Les Garnis d'Ouvriers à Paris." Picot, Georges. Ref. Soc. 9:823 (June 1, 1900). 73

——. "L'Habitation ouvrière à Paris: Le Logement en Garni." Picot, Georges. Soc. Fran. Hab. à bon marché. No. 2, p. 171 (1900). 74

——. "Les Logements à bon marché. Recueil annoté des discussions délibérations et rapports du Conseil municipal de Paris." (Monographie municipale). Paris, Imprimerie Municipale, 1897. 8vo, 1343 pp. 75

——. The Mechanism of Modern Life; the Parisian House. d'Avenel, G. Revue d. Deux Mondes April 15, 1897. 76

——. Pointe-d'Ivry. "Une Enquête sur les Logements, Professions, Salaries et Budgets dans le Quartier de la Pointe d'Ivry." Mangenot. Ref. Soc. 37:768 (May 16, 1899); 37:832 (June 1, 1899). 77

——. "Tenement Houses in Paris." Morss, Samuel E. U. S. Consular Reports, Vol. XLVIII, No. 178, p. 454-473. 78

Improvement of Paris. "Paris Demolished and Paris Embellished." Bristed, C. A. Fraser 51:73 (1855). (See also under Haussmann above). 79

Labor in Paris, The Condition of. Veber, A. Revue Socialiste (Paris) April, 1897. 80

——. "Les Conditions du Travail dans les Chantiers communaux." (Monographie municipale, Recueil annotée des discussions délibérations et rapports du conseil municipale de Paris.) Paris. Imprimerie municipale, 1896. 2012 pp. 81

——. "Municipal Refuge for Workingmen." Zimmern, Helen. Char. R. 2:226 (1893). 82

——. "Workingmen's Cafés, Paris." Sanborn, A. F. No. Am. 158:251 (1894). 83

——. (See also Point d'Ivry under Housing above, Transit Facilities, Unemployment below).

"Laboratory, The Paris Municipal." Tarbell, Ida M. McClure's 3:177 (1894). 84

——. "Le Laboratoire Municipal de Chimie de la Ville de Paris." P. C. R. Municipale 3:1884 (Feb. 3, 1900). 85

"Libraries of Paris." James, H., Jr. Nation 20:131 (1875), Lib. J. 12:135 (1887). 86

——. "Les Bibliothèques municipales de la ville de Paris." Saint-Albin, Emm. de. Paris, Berger-Levrault, 1896. 8vo, 7 fr. 50c. 87

"Lighting of Paris." (Historical and statistical review). Annales des Ponts et Chaussées, Sept. 1894. 88

——. Gas. "La Compagnie du Gaz et la ville de Paris." Cochin, Denys. Paris, Doin, 1883. 2 fr. 89

——. "Gas Supply of Paris, The." Connor, Edward. Plumb. & Dec. April 1, 1898. 90

——. "Les Services Publics: L'Eclairage au Gaz à Paris." Charnay, Maurice. R. Soc. 29:703 (June 1899). 91

——. "Paris Gas Accounts." Gas Wld. July 3, 1897. 92

——. "Paris Gas Question." Allen, Walter. Mun. Aff. 2:134 (March 1898). 93

——. "Public Lighting in Paris." Levy, Auguste. Gas W. Oct. 6, 1900. 94

——. "Welsbach System, Public Lighting by the." Maréchal, M. J. of Gas Light. Feb. 16, 1897. 95

Paris—*Continued.*

——. "Questions departementales. Du gaz, d'éclairage chauffage et force motrice dans le département de la Seine." Moïse, Charles. Paris, Dentu, 1883. 1 fr. 50c. 96

——. "Die Stellung der Privaten Beleuchtungsgesellschaften zu Stadt und Staat. Die Erfahrung in Wien, Paris und Massachusetts." Gray, John Henry. Jena, Gustav Fischer, 1893. 167 pp. 97

Lodging Houses. (See under Housing above).

"Markets in Paris." Gowdy, John K. Cons. Rep. 60:121 (May 1899). 98

Mayoralty of Paris. "Paris et la Marie Centrale, Etude de la décentralisation administrative." Villain, Georges. Paris, Ghio, 1884. 1 fr. 99

——. "Paris, son Maire et sa Police." Depasse, H. Paris, Marpont et Flammarion, 1881. 1 fr. 25c. 100

——. The Central Mayoralty of Paris. Combarieu, A. R. Pol. et Par. July 10, 1897. 1

——. "The Mairies of Paris." Arch. Rec. 7:401 (June 30, 1898).

Milk Supply. "Municipal System of Sterilizing Milk in Paris, The." Conner, Edward. San. Rec. Supp. Oct. 21, 1898. Mun. World 9:155 (Sept. 1899). 2

Municipal Control, Etc. "Municipal Franchises in Paris." Lespinasse, Geo. S. Real Estate Rec. & Guide Dec. 3, 1892, p. 719. 3

Octrois. (See under Finance above).

Omnibuses. (See under Transit Facilities below).

"Parks of Paris, The." Building News 16:498.

——. Designing. "Die Anlage und Umwandlung der neuen öffentlichen Gärten und Squares in Paris." Allg. Bauz. p. 96, 1862. 4

——. "Nurseries of the City of Paris, The New." Park & Cem. 8:32 (April, 1898).

——. "Parks and Gardens of Paris, The." Raper, G. A. Ludgate May 1900. 5

——. "Parks, Promenades and Gardens of Paris described in relation to the wants of our own cities." Robinson, Wm. London, 3d ed., 1883. 644 pp. 6

——. "Promenades et Plantations, Parcs, Jardins Publics, Squares et Boulevards de Paris." R. Gen. de l'Arch. pp. 128, 173, 245, 1863. 7

——. "Les Promenades de Paris, Bois de Boulogne et de Vincennes, Parcs, Squares, Boulevards de la Ville de Paris." Alphand, A. Paris, 1867-73. 8

——. Trees. "Les nouvelles Plantations d'Arbres à Paris." Nouv. Annales de la Const. p. 181, 1876. 9

"Pavements of Paris, The." Gowdy, John K. Cons. Rep. 60:123 (May 1899). 10

——. Wood Pavements in Paris. Laurent, M. A. Eng. & Buil. Rec. April 7, 1887, June 9, 1888; anon. San. Rec. 19:559 (June 11, 1897). 11

"Pawnbroking in Paris." Ralston, W. R. S. Good Words 9:230 (1868). 12

——. "Pawnbrokers of Paris." About, E. Bank M. (N. Y.) 16:193 (1862). 13

——. "Public Pawnshop." Patterson, W. R. Ann. Am. Acad. Pol. Sci. 15:483 (May 1900). 14

Police of Paris. "Paris, son maire et sa police." Depasse, H. Paris, Marpont et Flammarion, 1881. 1 fr. 25c. 15

——. "La Police Parisienne, le service de la sureté." Macé, G. Paris, Charpentier et Cie., 1884. 3 fr. 50c. 16

——. "Police of Paris." Griffiths, A. Cassell's, July 1897. 17

Population. "Resultats Statistiques du Dénombrement de 1891 pour la ville de Paris et le département de la Seine et renseignments relatifs aux dénombrements anterieurs." Masson, Préfecture de la Seine, Service de la statistique municipale, 1894. 6 fr. 18

——. "Le Sol et la Croissance de Paris." Dupuy, Paul. Ann. de Géographie 9:340 (July 15, 1900). 19

"Prostitution à Paris, La." Richard, Emile. Paris, Baillière et Fils., 1890. 20

——. "Prostitution considérée sous le rapport de l'hygiène publique, de la morale et de l'administration." Parent-Duchatelet, A. J. B. Paris, Baillière et Fils., 3e édit., 1857. 2 vols. 731, 892 pp. 21

——. "La Prostitution à Paris et à Londres, 1789-1877." Le Cour, C. J. Paris, Asselin & Cie., 3e édit., 1878. 416 pp. 5 fr. 22

Public Comfort Stations in Paris. Baugwks.-Ztg. p. 304, 1875; La Semaine des Const. pp. 304, 341 (1876-7), p. 246 (1877-8). 23

Paris—*Continued.*

"Public Works and Improvements of Paris, 1856." Quar. 99:200 (1856). 24

——. "Government of Paris, with especial reference to Public Works." Woods, Henry D. J. Assoc. Engin. Soc. March 1892. 25

"Sanitary Administration in Paris." Ecl. Engin. M. 13:547 (1875), 19:124 (1878), 24:296 (1881). 26

——. "L'Assainissement de Paris." Jourdan, Gustav. Paris, Berger-Levrault, 1885. 8vo, 2 fr. 50c. 27

——. "L'Assainissement de la Seine." Bechmann, G. Bulletin de la Société d'Encour. Feb. 1898. 28

——. "Assainissement de Paris, Suppression complète de la Vidange." Miotat, Eug. Paris, Ducher et Cie., 1883. 2 fr. 50c. 29

——. "Etat Actuel de l'Assainissement de Paris." Génie Civil July 22, 1899. 30

——. "Les Services Sanitaires de la ville de Paris." Joltrain, A. Paris, Berger, 1893. 300 pp. 3 fr. 31

——. "Die Stadt Paris vom Gesundheitstechnischen Standpunkte." Beraneck, Hermann. Zeitschr. d. Oest. Ing. u. Arch. Verein, April 27, 1900. 32

——. "Tuberculosis, How the Paris Municipality Fights." Conner, Edward. Mun. World 8:136 (Sept. 1898). 33

Savings Banks. "La Caisse d'Epargne et de Prévoyance de Paris." Bayard, E. Paris, Hachette, 1892. 7 fr. 50c. 34

——. "Les Caisses d'Epargne et de Prévoyance de Paris depuis leur origine jusqu'à nos jours." Laurent, M. H. Pithiviers, imprimeries des caisses d'épargne, 1892. 35

Schools. "A Municipal School of Physics and Chemistry." Lauth, Charles. R. Sci. 13:781 (June 23, 1900). 36

Sewerage, Sewage Disposal of Paris. Adams, S. H. Engng. Times, Aug. 1900, San. Rec. 26:495, 517, 538, 561 (Dec. 7, 14, 21, 28, 1900); Chancellor, C. W. U. S. Cons. Reports, Vol. XLVII, No. 173, p. 149 (Feb. 1895); Flagg, J. F. Eng. Rec. Dec. 5, 1896; Fourrey, E.R.Technique, Sept. 25, 1899, Oct. 10, 1899; Fuertes, James H. Engng. Rec. 38:33 (June 11, 1898); Hooper, L. H. Lippinc. 19:256 (1876); Rabot, M. E. Ann. D'Hyg. Pub. 40:397 (Nov. 1, 1898); Thoinot, L. Ann. D'Hyg. Pub. 42:560 (Dec. 1899); anon. Van Nos. Engin. M. 19:124 (1878), Engin. News Nov. 6, 1886; Engin. News June 20, 1885; Oesterr, Monatschr. f. d. Oeffent. Baudienst, May 1897; Glaser's Annalen May 15, 1897; Engng. News 42:107 (Aug. 17, 1899); Eng. (Lond.) 88:510 (Nov. 24, 1899); Mun. J. & London 9:47 (Jan. 19, 1900). 37

——. "Les Egouts de Paris." Liger, François. Paris, Guillaumin, 1883. 3 fr. 38

——. Farms, Paris Sewage. Use of Sewage in Irrigation. Bechmann & Launay, Engng. News p. 121, Aug. 22, 1895; Conner, E. Land M., Jan. 1900; anon. Engng. News 39:170 (March 17, 1898); Engng. Rec. 40:213 (Aug. 5, 1899). 39

——. Incineration of the Sewage of Paris. "L'Incineration des Gadoues de Paris." La Revue Technique Feb. 25, 1897. 40

——. "Utilization of the Sewage of Paris" Am. Arch. 13:145 (1883).

"Smoke Prevention in Paris." San. Rec. 22:483 (Nov. 4, 1898).

Socialism, Municipal. "L'Oeuvre des Municipalités Socialistes, Paris." Charnay, M. Le Mouvement Socialiste, April 15, 1900. (See also under Elections above). 41

Street Cleaning in Paris. Grimshaw, Robert. Engng. M. 13:99 (April, 1897); Rockwell, Alfred P. Pav. & Mun. Engineer, March 1896; Vaissière, M. Ecl. M. 19:103, 24:431 (1881); Williams, Henry Smith. Hrprs. Wkly. 38:947 (1894); anon. Engng. News Aug. 22, 1891, p. 173; Sanitary Record 19:391 (April 30, 1897); Public Improvements 1:58 (June 15, 1899). 42

"Street Improvement of Paris." Tite, W. J. Statis. Soc. 27:378 (1864). 43

"Street Scenes in Paris." (Eight Ills.) Chaut. 25:153 (May 1897). 44

Streets, Etc. "Paris in Bezug auf Strassenbau und Stadterweiterung." Stübben, J. Zeitschr. f. Bauw p. 377, 1879. Auch in Buchhandel Erschienen, Berlin, 1879. 45

——. "L'Avenue de l'Opera." Nouv. Annales de la Const. p. 176, 1876.

——. "Les Démolitions de l'Avenue de l'Opera." Gaz. des Arch. et du Bat. p. 187, 1876.

——. "Des dépôts de voire de la ville de Paris, considérés au point de vue de la salubrite." du Mesnil, O. Ann. d'Hyg. 7:155 (1882). 46

"Suburbs of Paris, The." Warren, Frederick M. Chaut. 30:510 (Feb. 1900). 47

Taxation. (See under Finance above.)

Paris—*Continued.*

Tenement Houses. (See under Housing above.)

Theatre. "Le Théâtre Paris." Sarcey, Francisque. Cosmopolis 11:169 (July 1898). 48

Transit Facilities. Electric Traction. Dieudonné, Emil. La Revue Technique March 10, 1898; anon. same, Dec. 25, 1896; Oesterr. Monatschr. f. d. "offentl. Baudienst, June, 1897; Ry. World 7:290 (Sept. 1898), 8:13 (Jan. 5, 1899); Zeitschr. f. Klein-u. Strassenbahnen, March 16, 1900. 49

——. "Elevated Roads for Paris." Lespinasse, Geo. S. Real Estate Rec. & Guide Feb. 4 1893, p. 168, April 29, 1893, p. 660. 50

——. Heavy Underground Electric Railroading. anon. Railroad Gaz. 30:390 (June 3, 1898); Elec. Eng. 25:680 (June 16, 1998). 51

——. Mechanically Operated Tramways in Paris. "Die Bahnen mit Mechanischem Betrieb in Paris." Zeitschr. f. Klein-u. Strassenbahnen June 1, 16, July 1, 1900.

——. Metropolitan Underground Railway, Paris. de Néronde, C. Monde Moderne 10:225 (Aug. 1899); Dumas, A. Génie Civil 37:197 (July 21, 1900); Haag, M. Mem. Soc. des Ing. Civ. Paris, Dec. 1884, Feb. 1885; James, Edmund J. pp. 124-136 in Report of the Street Railway Commission of the City Council of the City of Chicago, City Council, Chicago, 1900, 8vo, 136 pp.; Leugny, Georges. La Revue Tecnique Dec. 10, 1898; anon. Engin. News 38:132 (Aug. 26, 1897); Le Génie Civil Oct. 22, 1898; Eng. (London) 89:84 (Jan. 26, 1900); Moniteur Industriel July 28, 1900, Aug. 4, 1900; Elec. W. & E. 36:203 (Aug. 11, 1900); Sci. Am. 83:120 (Aug. 25, 1900); Engng. Rec. 42:122 (Aug. 11, 1900); St. Ry. J. 16.797 (Sept. 1, 1900); Ty. & Ry. World 9:486 (Oct. 11, 1900); Engng. N. 44:392 (Dec. 6, 1900). 52

——. "Omnibus et Tramways de Paris." (Recueil annoté de documents legislatifs et administratifs.) Paris, Imprimerie municipale, 1894. 147 pp. 53

——. "Rapid Transit in Paris." anon. Engng. News 39:271 (April 28, 1898); Parsons, W. B. p. 44 in his "Rapid Transit in Foreign Cities," New York, 1894. 54

——. "Street Railway Employees in Paris." James, Edmund J. Am. J. Sociol. 5:826 (May 1900). 55

——. Tramways, Paris. Jean, Charles. Génie Civil Jan. 13, 1900; Lavalard, M. St. Ry. Jour. 13:16 (Jan. 1897); anon. Ty. & Ry. World 9:135 (April 5, 1900); Mun. J. 9:298 (April 20, 1900); Mun. J. 9:690 (Aug. 31, 1900). 56

"Trees of Paris." Lespinasse, Geo. S. Real Estate Rec. & Guide Jan. 14, 1893, p. 42. (See also under Parks above.) 57

Tuberculosis. (See under Sanitation above). 58

Unemployed in Paris, Aid to. Brelay, Ernest. L'Economiste Française 1:239, 549 (1897); Conner, Edward. Mun. World 10:4, 20 (Jan., Feb. 1900); Dawson, W. H. Econ. J. 8:138 (March 1898); Honoré, F. Réf. Soc. 32:265-275 (1896). 59

——. "Bourse du Travail of Paris, The." Carstens, C. C. Ann. Am. Acad. Pol. Sci. 16:168 (July 1900). (See also Housing, Labor above.) 60

Water Supply of Paris. Arago, Ch. Ann. d'Hyg. Pub. 43:254 (Mar. 1900); Meunier, Stanislas. R. Sci. Apr. 22, 1899; anon. J. Gas Light. Jan. 12, 1897; Eng. Dec. 16, 1898; Revue Technique Feb. 25, 1899; Ann. Am. Acad. Pol. Sci. 14:144 (July 1899); Engng. News 44:281 (Oct. 25, 1900). 61

——. Consumption of Water. "La Consommation de l'Eau à Paris." Revue Municipale 2:1509 (Aug. 19, 1899). 62

——. "The Recent Water Famine in Paris; Water Waste and Purification." Hazen, Allen. Engng. News 44:274 (Oct. 25, 1900). 63

——. "Report on the Paris Water Supply." (Presented to Water Committee of London County Council, April 13, 1894). Binnie, A. R. London, Edward Stanford, 1894. 26 pp., plates. 1 s. 64

——. Suburbs. "Die Wasserleitung für die Umgebung von Paris." Hofer, Thomas. Oesterr. Monatschr. Oeffent. Baudienst Oct. 1900. 65

"**Paris, Tex.**, Sewage Filter Beds at." Engng. News 38:98 (Aug. 12, 1897).

Parks, Playgrounds, Squares, Etc. (See also **Streets**).

See also Baltimore, Barcelona, Boston, Brooklyn, Brussels, Cambridge, Chicago, Cleveland, Detroit, Hague, Italy, Lincoln (Neb.), London, Louisville, Manchester (Eng.), Mansfield, Minneapolis, New England, New Haven, New Orleans, New York, Paris, Philadelphia, Providence, Rochester, St. Louis, Vienna, Washington, Wilmington.

General References.

Parks, Playgrounds, Etc.—*Continued.*

"L'Art des Jardins. Traité général de la composition des parcs et jardins." (avec fig. et 11 pl.) André, E. Paris, G. Masson, 1879. 4to. 35 fr. 66

"City Parks." Jones, Beatrix. Mun. Aff. 3:687 (Dec. 1899); anon. City & State 8:391 (June 21, 1900). 67

"Construction et décorations pour jardins: kiosques—orangeries—voliéres—abris divers." (avec 56 planches.) Boussard, J. Paris, Ve Morel et Cie., 1881. 60 fr. 68

"Europe, Parks and Gardens of." Thayer, R. Philadelphia, Report to Commissioners of Fairmount Park, 1880. 4to. 68a

"Lehrbuch d. schönen Gartenkunst, m. bes. Rücksicht auf. d. praktische Ausführung v. Gärten u. Parkanlagen." Meyer, G. Berlin, Ernst u. Korn, 2 Aufl., 1873. 4to, 251 pp., tables, diagrams, etc. 26m. 69

"Les Parcs et Jardins." Lefèvre, A. Paris, Hachette et Cie., 1867. 12mo. 2 fr. 70

Metropolitan Parks. Meath, Earl of. New R. 11:201 (1894), 2:432 (1890). 71

"Parks and Gardens." Fraser 47:686 (1853). 72

"Parks, Gardens and Public Squares in Cities." pp. 141-206, 439-514, J. Stübben's "Städtebau." Darmstadt, Bergsträsser, 1890. 561 pp. 32m. 73

"Parks for Growing Cities." Garden & F. 5:61 (1892). 74

"Parks, Parkways and Pleasure Grounds." Olmsted, Frederick Law. Engng. M. 9:253 (1895). 75

"Praktische und Aesthetische Anforderungen an neue landschaftliche Anlagen." Jürgens, R. Leipzig, 1886. 76

"Public Spaces, Parks and Gardens." Blomfield, Reginald. Ch. IV, p. 167 of "Art and Life and the Building and Decoration of Cities." London, Rivington, Percival & Co., 1897. 260 pp. $2.40. 78

"School Grounds, Home Grounds, Play Grounds, Parks and Forests." Dock, Mira Lloyd. Pa. Dept. of Agriculture, Bulletin No. 62, 1900. 8vo, 33 pp. Free. 79

"Social Arrows." Brabazon, Lord. London, Longmans G. & Co., 1887. 414 pp. 5s. (Parks, Play Grounds, Public Baths, etc.) 80

"Standard of Taste for Parks, The." Soc Econ. 8:321 (1895).

"The Coming of Garden Cities." Mun. J. & London 8:928 (Aug. 18, 1899).

"The Parks and Gardens of the World described and illustrated." London, T. Nelson & Sons, 1880.

"Abuse of Public Parks." Garden & F. 7:412 (1894). 81

"Accounts, Park Nomenclature and." Parker, G. A. Park & Cem. 9:141 (Sept. 1899). 82

"Administration of Public Parks." Garden & F. 2:61 (1889).

——. "Care of Urban Parks." Garden & F. 8:82 (1895).

Amusements, Park. Pincus, Henry. St. Ry. J. 15:163 (March, 1899); Davis, E. H. St. Ry. R. 8:786 (Nov. 15, 1898), St. Ry. J. 14:741 (Nov. 1898). 83

Art and Ornamentation. "Art Societies and City Parks." Garden & F. 6:290 (1893). 84

——. "Garten-Architektur." Abel, L. Wien, 1876. 85

——. "Outdoor Art and Workingmen's Homes." Shuey, Edwin L. Park and Outdoor Art Association p. 112, 1897-8. 86

——. "Park Ornamentation." (Editorial.) Mun. World 7:221 (Nov. 1897).

——. "Parks and Municipal Art." Jones, Harry W. Park and Outdoor Art Association, p. 29, 1897. 87

——. "Statue in the Park, The." Partridge, William Ordway. City Govt. 9:52 (Aug. 1900). 88

Bibliography. "Check List of Works on Landscape Gardening and Parks in the New York Public Library." Nov. 1, 1899. (Exclusive of magazine articles.) Bulletin of the New York Public Library, Vol. III, No. 12 (Dec. 1899), pp. 506-517. 89

——. "Bibliography on the Art of Landscape Gardening." (Containing many references to material on parks.) Codman, Henry Sargent. Garden & F. 3:131, 135 (1890). 90

Boulevards, Parks and. Cleveland, H. W. S. Lakeside 7:412 (1872); Sargent, C. S. Garden & F. 7:11 (1894); Schrader, A. C. J. W. Soc. Eng. 5:157 (June, 1900). 91

Parks, Playgrounds, Etc.—*Continued.*

——. "Note sur les Plantations d'Alignement pour Routes, Canaux, Allées, Avenues, Promenades, Parcs et Quinconces." Nouv. Annales de la Const. p. 37, 1856. 92

——. "Parks and Tree Lined Avenues." Jones, Augustine. Pubs. of Advance Club, No. 7, Providence, R. I., 1891. 93

"Breathing Spaces, How to Ensure." Lewes, C. L. 19th Cent. 21:677 (1887). 94

Bridges, Park. Sanne, Oscar. Mun. Engng. 15:228 (Oct. 1898); anon. Engng. Rec. 39:160 (Jan. 21, 1899). 95

Cemeteries. (See under **Burial in Cities.**)

"Commissioners, The Duties of Park." Wahl, Christian. Park and Outdoor Art Assn., p. 132, 1897-8; anon. Park & Cem. 8:143 (Oct. 1898). 96

——. "Park Boards and their Professional Advisers." Garden & F. 7:461 (1894).

"Common Land, Our." (Preservation of Commons and Public Parks.) Hill, Octavia. London, Macmillan, 1877. 206 pp. 3s. 6d. 97

——. "Commons, Parks and Open Spaces." Hunter, Robert. Contemp. 50:387 (1886). 98

"Confiscation of Public Parks." Garden & F. 2:229 (1889).

"Construction of Parks." Cleveland, H. W. S. Garden & F. 3:129 (1890). 99

——. "Behelfe zur Anlage und Bepflanzung von Gärten." Czullik, A. Wien, 1882 and 1885. 100

——. "Common Errors in Park Construction." Pincus, Henry. St. Ry. J. 16:460 (May 5, 1900). 1

——. "Design and Park Planting, Park." Manning, Warren H. Park and Outdoor Art Association p. 50, 1897, Park & Cem. 7:75 (June, 1897). 2

——. "Gärten Architektur. Gärten Pläne und Park-Anlagen." Hiersemann, K. W. Leipzig, 1897. 8vo. 3

——. "Park Making." (Editorial.) Garden & F. 10:489 (Dec. 15, 1897). 4

——. "Park Making as a National Art." Robbins, Mary Caroline. Atlan. 79:86 (Jan. 1897). Reviewed in Garden and F. 10:11 (Jan. 13, 1897). 5

"Cost of Park Maintenance, One Way to reduce the." (Editorial.) Garden & F. 10:271 (July 14, 1897).

"Defacement of City Parks." Garden & F. 8:231 (1895). 6

"Essential Features of a Park System." Pav. and Mun. Engng. March, 1896.

"Function of City Parks, The True." Anon. Garden & F. 4:97 (1891), 10:261 (July 7, 1897).

"Garden and Park Improvement." Park and Cemetery 7:27 (April, 1897).

History. "L'Art des jardins. Parcs—jardins—promenades. Etude historique—principes de la composition des jardins—plantations." Ernouf, A. A. Paris, Rothschild, 3d. ed., 1886. 4to, 500 vignettes. 20 fr. 7

——. "Gartenkunst und Gärten Sonst und Jetzt." Jager, H. Berlin, 1887-88. 8

"Influence of Parks." Hall, W. H. Overland 11:527 (1889). 9

——. "Influence of Parks on the Character of Children." Cleveland, H. W. S. Park and Outdoor Art Association, p. 105, 1897-8. 10

——. "The City as a Child-Saver." City & State 4:386 (March 10, 1898). 11

"Investments and Educators, Parks as." Holden, L. E. Park and Outdoor Art Association, p. 42, 1897. 12

"Landscape Engineering." Eldridge, W. K. Mun. Engng. 16:293 (May, 1899). 13

——. "Appreciation of Natural Beauty." Simonds, O. C. Park and Outdoor Art Association, p. 73, 1897-8. 14

——. "Art and Nature in Landscape Gardening." Garden & F. 10:191 (1897)

——. "Der Gärten: Seine Kunst und Kunstgeschichte." Falke, J. V. Stuttgart, 1884. 15

——. "Die moderne Teppichgärtnerei." Hampel, W. Berlin, 1887. 16

——. Italian Renaissance Landscape Gardening. "Die Gartenkunst der Italienischen Renaissance-Zeit." Tuckermann, W. P. Berlin, 1884. 17

——. "Landscape Gardens." McCormick, Cyrus H. Park & Cem. 10:141 (Aug. 1900). 18

——. "Lehrbuch der schönen Gartenkunst." Meyer, G. Berlin, 1873. 19

——. "Natural Beauty in Urban Parks." (Editorial.) Garden & F. 10:251 (June 30, 1897). 20

——. "Ornamental Planting for Public Parks and Grounds." Egerton, William

Parks, Playgrounds, Etc.—*Continued.*

S. Park and Outdoor Art Association, p. 56, 1897. 21

——. "Park Landscapes." King, George R. Pp. 40-45 in "Proceedings of American Park and Outdoor Art Association," Vol. 3, Pt. 3, 8vo. 56 pp. Pamphlet. 22

——. "Park Woodlands and Plantations." Pettigrew, J. A. Park and Outdoor Art Association, p. 147, 1897-8. 23

"Land for Parks, Danger of Delay in Acquiring." Cleveland, H. W. S. Garden & F. 5:131 (1892). 24

"Large Public Park, The True Purpose of a." Olmsted, John C. Park and Outdoor Art Association, p. 11, 1897. 25

"Lighting Plant, Park." (Chicago plant which supplies current for the chain of parks and boulevards on the west side.) Heldt, P. M. American Electrician (New York) April, 1897. 26

"Milk Distribution in the Public Parks." Straus, Nathan. Sanitarian 43:60 (July, 1899). 27

"Municipal Parks and Open Spaces." Pp. 18-25 in "Municipal Extension and Other Essays." Ellery, T. George. Adelaide, Thomas & Co., 1899. 12mo, 51 pp. 28

——. "Municipalities and Pleasure." Mun. J. & London 8:755 (June 30, 1899). 29

——. "Service municipal. Plantations d'alignement, promenades, parcs et jardins publics." Lefebre, G. Paris, 1897. 12mo. 30

——. "The Relation of Parks to the Municipality." Robertson, R. F. Cal. Mun. 1:79 (Oct. 1899). 31

"Need of Parks, The." Eliot, Charles. Address before the Advance Club, Providence, R. I., 1891. 32

——. "Need of More Public Pleasure Grounds, The." Garden & F. 10:30 (Jan. 27, 1897). 33

"Next Stage in the Development of Public Parks." Hyatt, A. Atlan. 67:215 (1891). 34

"People, The Parks and the." Parsons, Samuel, Jr. Outlook 59:23 (May 7, 1898); Coryell, J. R. Park & Cem. 9:100 (July, 1899), pp. 3-9 in Proc. of the Amer. Park and Outdoor Art Assn., 1899. Vol. 3, pt. 3. 35

Playgrounds, Public. American, Sadie. Mchts. Assn. R. Vol. 5, No. 49, p. 1 (Sept. 1900); Betts, Lillian W. Outlook 54:327 (1896); Loring, Florence Barton. Park & Cem. 10:31 (April, 1900); Folwell, Wm. W. Park & Outdoor Art Assn., p. 65, 1897-8; Mackenzie, Constance. Kindergarten M. 9:688 (May, 1897); anon. Garden & F. 9:501 (Dec. 16, 1896), 10:479 (Dec. 8, 1897); Outlook 59:464 (June 25, 1898). 36

Playgrounds and Parks. White, H. L. Arena 10:279 (1894); Will, T. E. (with a brief bibliography of the subject), Arena 10:274 (1894); anon. Garden & F. 7:221 (1894), Dec. 10, 1898; Parks and Playgrounds. p. 972-975, Encyc. Soc. Ref. See 1-3. 37

——. "Educational and Civic Necessity, Public Playgrounds as an." Tsanoff, Stoyan Vasil. City Govt. 4:187 (May, 1898). 38

——. "Educational Value of the Children's Playgrounds." Tsanoff, Stoyan Vasil. Philadelphia, Published for the author, 1897. 203 pp. 39

——. "Market Playgrounds." Waring, Geo. E. Hrprs. Wkly. 39:1237 (1895). 40

——. "Playgrounds, Baths and Gymnasia." Quincy, Josiah. City Rec. 1:517 (Sept. 3, 1898), Sanitarian 41:303 (Oct. 1898), Ann. Am. Acad. Pol. Sci. 12:444 (Nov. 1898), N. Y. Educa. 2:135 (Nov. 1898). 41

——. "Playgrounds for Children." Vrooman, Walter. Hrprs. Wkly. 35:350 (1891), Cent. 43:317 (1891), Arena 10:284 (1894); Tsanoff, Stoyan Vasil. Mun. Aff. 7:293 (June, 1898). 42

——. "Playgrounds Movement, Stoyan Tsanoff and the." Truslow, Arthur. Outlook 58:772 (March 26, 1898). 43

——. "Playgrounds for Poor Children." Garden & Forest Dec. 10, 1898. 44

——. "The Movement for Small Playgrounds." American, Sadie. Am. J. Sociol. 4:159 (Sept. 1898). 45

"Pleasure Grounds." Westm. 35:418 (1841).

——. "A City's Small Pleasure Grounds." Baxter, Sylvester. Cent. 55:315 (Dec. 1897). 46

"Public Health, The Relation of Public Parks to." Douglas, Orlando B. Park and Outdoor Art Association, p. 123, 1897-8. 47

"Reservoirs to Public Parks, The Re'ation of." Olmsted, Frederick Law, Jr.

Parks, Playgrounds, Etc.—*Continued.*

Park & Cem. 9:99 (July, 1899), Mun. Engng. 18:71 (Feb. 1900), Engng. Rec. 41:173 (Feb. 24, 1900), Am. Park and Outdoor Art Association, Vol. III, pt. II, pp. 3-32, Detroit, Mich., 1899. 48

Roads, Park. Alexander, H. C. J. of Western Soc. of Engineers Oct. 1896; Foster, J. F. Ibid., Park & Cem. 10:109 (July, 1900), City Govt. 9:132 (Nov. 1900). 49

"School Yard Playgrounds." Commons No. 28. p. 1 (Aug. 1898). 50

——. "Playgrounds for City Schools." Riis, Jacob A. Cent. 48:657 (1894). 51

"Seaside Pleasure Grounds for Cities." Baxter, Sylvester. Scribner's 23:676 (June, 1898). 52

"Small Parks and Public School Playgrounds." Riis, Jacob A. Hrprs. Wkly. 41:903 (Sept. 11, 1897). 53

Squares, Public. Newton, T. M. Am. Arch. 43:52, 135 (1894); anon. Gaz. d'Arch. et du Bât. pp. 5, 46, 59 (1863). 54

——. "Evolution of the City Square." Parsons, Samuel, Jr. Scrib. M. 12:107 (1892). 55

Street Railway Parks. Anon. St. Ry. J. 13:93, 149, 289 (Feb., March and April, 1897), 14:275 (May, 1898). 56

——. "Practical Hints on the Design and Improvement of Street Railway Parks." Pincus, Henry. St. Ry. Jour. 14:211 (April, 1898). 57

"Suburban Home Grounds." Lowrie, Charles N. Park and Outdoor Art Association, p. 83, 1897-8. 58

"Superintendent, The Ideal Park." Simonds. O. C. Park & Cem. 7:116 (July, 1897). 59

"Trees and Parks in Cities, A Plea for." Windmüller, Louis. Forum 29:337 (May, 1900). 60

——. "Behandlung von Alleebäumen." Lehmann, O. Deutsche Baus. p. 233, 1881. 61

——. "Care of Park Trees." Garden and F. 10:151 (April 21, 1897). 62

——. "Die Baumpflanzungen in der Stadt und auf dem Lande." Abel, L. Wien, 1882. 63

——. "Städtische Baumpflanzungen." Dietrich, E. Baugwks.-Ztg. pp. 517, 532, 548, 1890. 64

——. Trees and Gardens in Cities. pp. 439-515 J. Stübben's "Städtebau." Darmstadt, Bergsträsser, 1890. 561 pp. 32 m. 65

——. "Ueber Anpflanzung von Bäumen im Innern der Städte vom Gesichtspunkte der öffentlichen Hygiene." Jeannel. Rec. de Mém. de Med. etc. Milit. p. 596, 1872. 66

——. "Ueber Baumpflanzungen auf Strassen in grösseren Städten." Riedel, J. Wochschr. d. Oest. Ing.-u. Arch.-Ver. p. 238, 1883. 67

——. "Welches ist der Zweck der Strassenbäumen im Innern der Grossstadt und wie erfüllen sie denselben?" Schulze, G. A. Sammlung gemeinnütziger Original-Vorträge und Abhandlungen auf dem Gebiete des Gartenbaues, Heft 16, Berlin, 1881. 68

"Use of City Parks." Garden & F. 4:349 (1891). 69

——. "Nutzen von freien Plätzen und Bäumen in den Städten." Heath, F. G. Sanitary Rec. 4:36, 101, 121, 173, 210; 5:308. 70

——. "The Proper Use of Public Parks." Garden & F. 2:457 (1889).

——. "Use and Management of Public Parks." Cowan, Andrew. Park and Outdoor Art Association, p. 19, 1897. 71

"Village Parks and Gardens." Riordan, R. Chaut. 8:545 (1890). 72

"Walks and Drives." Park & Cem. 9:210 (Dec. 1899). 73

"Water Front of Public Parks." Garden & F. 6:421 (1893). 74

Parties and Party Politics in Cities, Non-Partisanship. (See also **Elections**).

See also Chicago, Germany, New York City, New York State, United States.

"A New Type in City Politics." Cleveland, E. C. Our Day 19:361 (July, 1900). 75

"A Study in Municipal Politics." Nation 15:260 (1872), 19:21 (1874); Sedgwick, A. G. Nation 28:365 (1879). 76

"Assessments, Political." Roosevelt, Theodore. Atlan. 70:103 (1892); Whitredge, Frederick W. Lalor's Encyclopedia, Vol. I, pp. 153-5. 77

Parties and Party Politics in Cities—*Continued.*

"Between Elections." Chapman, John Jay. Atlan. 85:26 (Jan. 1900). 78
"Business Man in Municipal Politics, The." MacVeagh, Franklin. Pp. 133-144, Pro. of the Louisville Conf. for Good City Govt., 1897. See 6-18d. 79
"Great Cities, Party Politics in." Garrett, Philip C. 1882. 12 pp. 80
"Independence in Municipal Elections, Progress of." Schurz, Carl. Hrprs. Wkly. 41:1023 (Oct. 16, 1897). 81
"Limits of Party Obligation." Budd, Henry. Municipal League of Philadelphia Pubs, 1893. 20 pp. 82
"Municipal Parties." Eyre, Lincoln L. To-Day March, 1894. 83
——. "Independent Politics." Haight, A. S. Mun. Aff. 4:338 (June, 1900). 84
——. "Is a Third Party Necessary in Municipal Reform Work?" Chapman, John Jay. Mun. Aff. 4:329 (June, 1900), Cal. Mun. 3:7 (Aug. 1900). 85
——. "Municipal Parties." p. 129, "The Cosmopolis City Club." Gladden, Washington. New York, Century Co., 1893. 135 pp. $1. 86
——. "Need of Municipal Parties." McKelway, St. Clair. Good Govt. 15:121 (1896). 87
——. "Permanent Municipal Parties." Richardson, Charles. p. 204, Proc. First Natl. Conf. for Good City Govt., 1894. See 6-18a. 88
"National Parties, Municipal Government by." Richardson, Charles. p. 464, Proc. Second Natl. Conf. for Good City Govt., 1895. See 6-18b. 89
——. "Evils of Drawing Party Lines in Local Affairs." Speakman, Thomas H. Pamphlet. 10 pp. 1873. 90
——. "Municipal Threat in National Politics." Adams, J. C. New Eng. M. 4:570 (1891). 91
——. "Non-Partisanship in Municipal Government." Flower, R. P. Forum July, 1897. 92
——. "Non-Partisanship, a Municipal Necessity." Bolles, D. H. Gunton's M. 10:367 (1896). 93
——. "Non-Partisanship in Local Affairs." Ivins, Wm. M. (Reprinted from the Sun.) Mun. Rec. & Ad. Vol. 1, No. 22, p. 7 (Nov. 6. 1897). 94
—— "Partisan Municipal Government." Schurz, Carl. Hrprs. Wkly. 41:751 (July 30, 1897). 95
——. "The Exclusion of Partisan Politics from Municipal Affairs—The Democratic-European Method." Loomis, Frank M. Pp. 103-117, Proc. of the Louisville Conf. for Good City Govt., 1897. See 6-18d; M. & C. 4:35 (May, 1897). 96
——. "The Theory and Practice of Non-Partisanship." Gunton's M. 13:259 (Oct. 1897). 97
"Party Government." Richardson, Charles. Ann. Am. Acad. Pol. Sci. 2:518, 653 (1892). 98
——. "Government by Party." Waring, Geo. E. No. Am. 163:587 (1896). 99
——. "Party Organization in the United States and Belgium." Réforme Sociale June 16, 1897.
——. "Political Parties and City Government." Goodnow, Frank J. Intern. M. 1:618 (June, 1900). 100
——. "Political Parties and City Government under the Proposed Municipal Program." Goodnow, Frank J. Pp. 63-76 in Proc. of the Columbus Conf. for Good City Govt., 1899. See 6-18f. 1
——. "The Party System." Pt. III, Chs. LVII-LXXIII, pp. 55-227, Vol. II, of James Bryce's "American Commonwealth." New York, Macmillan, 3d ed., 1895. 2
"People vs. the Politicians, The." Speakman, Thomas H. Pamphlet, 16 pp. 1878. 3
"Politics as a Duty and a Career." Storey, Moorfield. New York, G. P. Putnam's Sons, 1899. 33 pp. 25 cts. 4
"Reformers in Party Politics, Municipal." Keller, John W. Mun. Aff. 4:343 (June, 1900). 5
"Rich Men in City Politics." Nation 13:316 (1871).
"State Control of Political Parties." Pavey, F. D. Forum 25:99 (March, 1898). 6
"The Political Wrecking of Business Enterprises." Coler, Bird S. Public Policy 2:398 (June 23, 1900). 7
"The Power of Public Plunder." Parton, James. No. Am. 133:41 (1881). 8
"Wage-Earner in Politics, The." Chance, George. Pp. 129-132, Proc. of the Louis-

Parties and Party Politics in Cities—*Continued.*

ville Conf. for Good City Govt., 1897. See 6-18d. 9

"What is a Party." Morse, A. D. Pol. Sci. Q. 11:68 (March, 1896). 10

Pasadena, Cal. "Sewage Farming at a Profit." Mun. J. & Eng. 9:156 (Dec. 1900). 11

Paterson, N. J.

"City Government of Paterson, N. J." Agnew, S. H. City Govt. 1:47 (1896). 12

History, description and statistics of Paterson, N. J., in 1880. Census. See 1-7. 13

Pauperism in Cities. (See under **Charities.**)

Pavements, Paving, etc. (See also **Streets.**)

See also Boston, Buffalo, Chicago, Cincinnati, Cleveland, Germany, Indianapolis, Iowa, Kansas City, Lafayette (Ind.), London, Louisville, Michigan, New Orleans, New York, Omaha, Paris, Peoria, Philadelphia, St. Louis, Switzerland, Sydney (N. S. W.), Trenton, Vancouver, United States, Washington.

General References.

"Asphalt and Brick Pavements." City Govt. 4:171 (May, 1898). 14

"City Streets and Country Roads." Mun. World 9:176 (Nov. 1899).

"City Roads and Pavements." (With special reference to small towns.) Judson, William Pierson. New York, Engineering News Pub. Co., 1894. 8vo, 60 pp. Paper, 75 cts. Cl., $1. 15

"Construction of Pavements and City Growth." Towle, Stevenson. Engng. M. 12:59 (1896). 16

——. "A Treatise on Highway Construction." Byrne, Austin T. New York, John Wiley & Sons, 3d ed., 1896. 8vo, 771 pp. Cl. $5. 17

——. "Construction and Care of Streets." Greene, F. V. Paper read before the Commonwealth Club of New York City. Eng. & Build. Rec. March 1, 1890, p. 106. 18

"Development of Roads and Street Pavements, The." Blackford, Francis W. J. Assoc. Engng. Soc. 22:156 (April, 1899). 19

"Economics of Street Paving." Whinery, S. Engng. Rec. 42:127 (Aug. 11, 1900), 42:148 (Aug. 18, 1900), Trans. Assn. Civ. Engs, Cornell Univ. 1900. 20

"Evolution of Public Roads." Hulbert, Archer Buller. Public Policy 2:119 (Feb. 24, 1900). 21

"Importance and Economy of Pavement Construction, The." Whinery, S. Engng. M. 12:245 (1896). 22

"Maintenance of Highways." Bond, Edward A. Engng. Rec. 40:576 (Nov. 18, 1899). 23

"Notes on Road Construction and Maintenance." Mills, Charles. Engng. Rec. 41:369 (April 21, 1900). 24

"On Pavements in General." Madden, M. B. City Govt. 1:9 (1896). 25

"Pavements, Confined Rivers and the Water Supply of Ancient Rome." Blackford, Francis W. J. Assoc. Engng. Soc. Dec. 1896. 26

"Pavements, Sidewalks, Roads and Bridges." Howard, J. W. Engng. M. 8:1014 (1895). 27

"Pavements for Street and Roads." Whinery, S. Engng. Rec. 42:170 (Aug. 25, 1900). 28

"Paving Town Streets." Mun. World 9:60 (April, 1899). 29

"Prices and Conditions, Paving." City Govt. 1:42 (1896).

"Repairing, Systematic Street." Mchts. Assoc. R. Vol. 3, No. 33, p. 4 (May, 1899).

"Report of the Committee on Street Paving." Pro. Am. Soc. Mun. Imp. (5th yr.) Pt. II, p. 115, Oct. 1898. 30

"Road Making and Maintenance." Herschel, Clemens, and E. P. North. New York, Engng. News Pub. Co., 1894. 8vo, 156 pp. 50c. 31

——. "Prize Essays on Road Making." New York, articles reprinted from Engng. Rec., 12mo, 100 pp. Engineering Record Press, 1892. $1. 32

"Street Pavements and Paving Materials. A Manual of City Pavements: The Methods and Materials of their Construction." Tillson, George W. New York, John Wiley & Sons, 1900. 8vo, 532 pp. Cloth, $4. 33

Pavements, Paving, Etc.—*Continued.*

"Street Paving." Mun. World 10:173 (Nov. 1900).

Text Book on Roads and Pavements, A." Spalding, Fred P. New York, Wiley & Sons, 1894. 12mo, 213 pp. Cl. $2. 34

"The Paving Question." Nicholl, T. J. St.Ry. R. 9:577 (Sept. 15, 1899); anon. Mun. & Ry. Rec. 5:127 (Sept. 15, 1899). 35

"Why Good Paving Is Essential to the Success of a City." Howard, J. W. Pav. and Mun. Eng. April, 1896, p. 227. 36

"What Pavements Do for a City." Howard, J. W. Mun. Engng. 18:356 (June, 1900). 37

"Asphalt and Asphalt Pavements." Tillson, Geo. W. Pro. Am. Soc. Civ. Engrs., April, 1897, Engng. News 38:157 (Sept. 2, 1897). 38

——. "Better Work and Better Prices for Asphalt and Other Pavements." Howard, J. W. Mun. Engng. 15:368 (Dec. 1898). 39

——. "Construction of Asphalt Pavements." Tillson, George W. City Govt. 9:74 (Sept. 1900); Mun. Engng. 19:179 (Sept. 1900), Engng. Rec. 42:198 (Sept. 1, 1900). 40

——. "Examination, Asphalt." Endeman, H. Mun. Engng. 13:6 (July, 1897), Am. Gas Lgt. J. 67:130 (July 26, 1897). 41

——. Failures in Asphalt Pavements. Dow, A. W. Mun. Engng. 18:18 (Jan, 1900); Engng. News 43:222 (April 5, 1900); anon. Engng. Rec. 41:6 (Jan. 6, 1900). 42

——. "Guaranties, Asphalt Paving." Engng. Rec. 38:155 (July 23, 1898). 43

——. "How to Obtain a Good Asphalt Street for the Least Money." Peckham, S. F. City Govt. 3:151 (Nov. 1897). 44

——. "Laboratory, Advantages of Asphalt Testing." Lewis, N. P. City Govt. 1:99 (1896). 45

——. "Manufacture of Asphalt Pavements, The." Engng. Rec. 38:529 (Nov. 19, 1898). 46

——. "Municipal Asphalt Plants." City Govt. 4:49 (Feb. 1898). 47

——. "Origin and History of Asphalt." Bienenfeld, Bernard. Mun. Eng. 12:271 (May, 1897). 48

——. "Physical Properties of Asphalts and Asphaltic Cements, The." Broadhurst, W. H. Mun. Engng. 17:282 (Nov. 1899). 49

——. "Repairs, Asphalt Pavements." Guthrie, E. B. City Govt. 1:106 (1896); anon. Mun. Engng. 17:14 (July, 1899). 50

——. "Residuum as a Flux for Asphalt." Richardson, Clifford. Mun. Engng. 16:354 (June, 1899). 51

——. "Specifications for Asphalt, Faulty." Peckham, F. S. City Govt. 2:163 (June, 1897). 52

——. "Street Grades and Cross Sections in Asphalt and Cement." Woods, Robert P. Mun. Engng. 17:190 (Oct. 1899). 53

——. "Testing Asphalts, One Year's Work with a Chemical Laboratory for." Tillson, Geo. W. Mun. Engng. 13:271 (Nov. 1897). 54

——. "Tests, Asphalt Paving." Puffer, F. E. Mun. Engng. 18:291 (May, 1900). 55

——. "The Relative Viscosity of Asphalts and Allied Bodies." Dow, A. W. Mun. Engng. 16:160 (March, 1899). 56

——. "Theory and Practice of Asphalt Mixtures." Dow, A. W. Mun. Engng. 15:364 (Dec. 1898), Pro. Am. Soc. Mun. Imp. (5th yr.) Pt. II, p. 144 (Oct. 1898). 57

——. "Water on Asphalt Pavements, The Action of." Luten, Daniel B. Engng. N. 44:113 (Aug. 16, 1900). 58

Assessment of Cost of Paving. (See Special Assessments under **Finance**).

"Bingham Paving, The." San. Rec. 26:382 (Nov. 2, 1900). 59

Brick Paving. Brown, Charles C. City Govt. 4:95 (March, 1898); Hastings, L. M. Engng. Rec. 40:454 (Oct. 14, 1899), Mun. Engng. 17:279 (Nov. 1899); Hathaway, S. J. City Govt. 1:104 (1896); Howe, Irving E. J. Assoc. Engng. Soc. 20:235 (March, 1898); Kemmler, E. A. Engng. Rec. 40:701 (Dec. 23, 1899); Luten, Daniel B. Engng. Rec. 41:196 (March 3, 1900); March, H. J. J. Assoc. Engng. Soc. 23:91 (Aug. 1899); Thompson, A. D. Brick, Feb. 1899; anon. Engng. Rec. 41:281 (March 24, 1900). 60

——. "Construction of Brick Pavements." Grimes, George R. Brick, March 1, 1900, Mun. Engng. 18:180 (March, 1900). 61

——. "Construction and Maintenance of Brick Pavements." Kemmler, E. A.

Pavements, Paving, Etc.—*Continued.*

Engng. Rec. 42:275 (Sept. 22, 1900), Brick, Nov. 1, 1900, Mun. Engng. 14:80 (Feb. 1898), Mun. Engng. 18:187 (Sept. 1900). 62

——. "Development of the Paving Brick Industry." Thompson, A. D. Mun. Engng. 16:157 (March, 1899). 63

——. "Noise on Brick Pavements." Mun. Engng. 14:198 (April, 1898). 64

——. "Secrets of Success in Making Good Paving Brick." Plumb, F. Mun. Engng. 16:226 (April, 1899). 65

——. "Small Towns, Brick Paving in." Smith, A. W. Mun. Engng. 12:83 (Feb. 1897). 66

——. Tests for Paving Brick. Brown, Charles Carroll. Mun. Engng. 15:1 (July, 1898); Elliott, A. C. Surveyor 18:142 (Aug. 3, 1900); Luten, Daniel B. Mun. Engng. 18:223 (April, 1900); Thompson, A. D. City Govt. 1:101 (1896), Mun. Engng. 12:211 (April, 1897), Mun. Engng. 18:8 (Jan. 1900); anon. Engin. News 37:285 (May 6, 1897), Engng. Rec. 41:244 (March 17, 1900). 67

——. Standard Specifications for Paving Brick Tests. Anon. Mun. Engng. 12:154 (March, 1897); Mun. Engin. 12:215 (April, 1897); Orton, Edward, Jr., Clay Rec., April 29, 1897. 68

——. "The Market Side of the Paving Brick Industry." Stevens, F. B. Mun. Engng. 18:152 (March, 1900). 69

——. "Vitrified Brick for Street Paving." Hatcher, E. N. City Govt. 6:30 (Feb. 1899). 70

——. "Wearing Power of Paving Brick, The." Orton, Edward. Mun. Engng. 12:161 (March, 1897). 71

"Cement Paving in Europe." Grimshaw, Robert. Mun. Engng. 13:76 (Aug. 1897). 72

——. "Cost of Concrete Mixtures, Relative." Mun. Engng. 14:4 (Jan. 1898). 73

——. "Development of the Cement Industry in America." Percy, G. W. Mun. Engng. 18:360 (June, 1900). 74

——. "Testing, Methods of Cement." Mun. Engng. 12:222 (April, 1897), 12:284 (May, 1897), 12:348 (June, 1897), 13:16 (July, 1897). 75

"Crowning Paved Streets, Mr. Rosewater's Rules for." Mun. Engng. 14:247 (May, 1898).

"Health, Influence of Pavements on Public." Campbell, A. W. Sanitarian 42:131 (Feb. 1899). 76

"Iron Slag Paving, American." Hayes, George W. Mun. Engng. 12:346 (June, 1897). 77

——. "German Iron Slag Paving." Grimshaw, Robert. Mun. Engng. 12:284 (May, 1897). 78

"Legislation for Better Roads, Practical." Beatty, William T. Mun. Engng. 15:217 (Oct. 1898). 79

"Life of Pavements, The." Tillson, George W. City Govt. 7:104 (Nov. 1899), Mun. Engng. 17:272 (Nov. 1899); anon. Eng. Rec. 40:477 (Oct. 21, 1899). 80

"Macadam for Streets." Mun. Engng. 17:80 (Aug. 1899). 81

Materials, Relative Value of. Bell, J. J. Can. Eng. 6:61 (July, 1898); Lewis, Nelson P. pp. 51-82 in Pro. of Brooklyn Engrs. Club, 1899, 8vo, 233 pp. Paper, $2; Tillson, George W. Pro. Am. Soc. Mun. Imp., Pt. 2, p. 149, 1898, City Govt. 5:187 (Nov. 1898), Mun. Engng. 15:353 (Dec. 1898); anon. St. Ry. J. July, 1890, p. 334, Pub. Imp. 1:40 (June 1, 1899). 82

"Modern City Roadways." Lewis, Nelson P. Pop. Sci. Mo. 56:524 (March, 1900), Pub. Imp. 3:454 (Aug. 1900). 83

——. "Modern Street Pavements." Gunn, O. B. J. Assoc. Eng. Soc., Oct. 1893. 84

"Motor Carriages and Street Paving." Conyngton, Thomas. Mun. Engng. 16:220 (April, 1899). 85

"Oiled Roads, A Report on." Brundage, Ben L. Cal. Mun. 2:112 (May, 1900). 86

"Promoter, The Paving." Engng. Rec. 40:45 (June 17, 1899). 87

"Smoothness of Pavements." Luten, Daniel B. Engng. Rec. 41:292 (March 31, 1900). 88

Stone Block Pavements, Construction of. Briggs, Josiah A. Mun. Engng. 19:184 (Sept. 1900); Fisher, E. A. Mun. Engng. 19:285 (Oct. 1900). 89

——. "Artificial Stone Pavements." Grimshaw, Robert. Mun. Engng. 13:193 (Oct. 1897). 90

"Street Railways and Street Pavements." Fisher, Edwin A. Engng. Rec. 40:457

Pavements, Paving, Etc.—*Continued.*

(Oct. 14, 1899). 91

——. "Compensation for Street Railway Franchises, Street Paving an Improper Basis of." Engin. News 37:376 (June 17, 1897).

——. "The Modern Street Rail and its Relation to Pavement." Howard, J. W. Mun. Engng. 12:81 (Feb. 1897). 92

——. "Rails, Influence of, on Street Pavements." North, Edward P. Am. Soc. Civil Engrs. Nov. 1896. 93

——. "Street Railway Tracks, Pavements Between." Rust, Charles H. City Govt. 7:138 (Dec. 1899), Engng. Rec. 40:455 (Oct. 14, 1899), Mun. Engng. 17:291 (Nov. 1899), St. Ry. R. 9:848 (Dec. 15, 1899). 94

——. "Tracks and Pavements, Car." Owen, James. City Govt. 2:17 (Jan. 1897). 95

"Waste Coal Ashes, Pavement from." City Govt. 3:86 (Sept. 1897).

"Wooden Block Pavements." Downing. M. A. City Govt. 1:139 (Dec. 1896). 96

——. "California Redwood for Street Pavements." McCullough, Ernest. Mun. Eng. 12:362 (June, 1897). 97

——. Creosoted Wood Block Pavement. Hetherington, F. A. Mun. Engng. 15:137 (Sept. 1898); Kenyon, Clarence A. Mun. Engng. 15:141 (Sept. 1898). 98

——. "Hygienic View of Wood Paving." Petsch, A. Sci. Am. Sup., March 20, 1897. 99

——. "Maintenance of Wood Pavement in European Cities." Grimshaw, Robert. Mun. Engng. 12:205 (April, 1897). 100

Pawnshops, Monts de Piete.

See also Austria, France, Germany, Leipsic, Italy, Paris, Spain.

"Benevolent Loan Asociation." Smith, Katherine Louise. Arena 24:86 (July, 1900). 1

Interest at Two Per Cent., Pawnshops and. Rodriguez, Pedro. Ciudad de Dios Nov. 5, 1899. 2

"Leihhäuser." Würzburger, Eugen. Handw. d. Staatswissenschaften 5:601 (1900). 3

"Meccanismo di un monte di pietà." Tavernari, C. Modena, Bassi e Debri, 1891. 67 pp. 4

"Monti di Pietà e Beneficenza." Fanelli, Aug. Roma, Union Co-operativa editrice, 1895. 38 pp. 5

"Mont de Piété System of Pawnbroking." Porter, H. J. J. Statis, Soc. 3:293, 4:348 (1840-1). 6

"Mont de Piété." Campagnole, Edouard. Pp. 617-624, Vol. II, Say's "Dictionnaire des Finances"; Hooper, L. H. Lippinc. 21:117 (1878); Renouard, Alfred. Pp. 333-4, Vol. II, "Dict. d. Economie Politique." 7

"Municipal Pawnshops." London, The Fabian Society, 1900. 4 pp. Pamphlet, 1d. 8

——. "How to Municipalize the Pawnshops." Donald, R. New R. 11:581 (1894). 9

——. "Why not Municipalize the Pawnshops." Donald, R. Contemp. 66:177 (1894). 10

"Pawnbroking." Giles, William A. Civic Federation Papers, No. 16, 27 pp. Chicago, Civic Federation, 1899. Pamphlet. 11

"Pawnbroking in Various Countries." Baldwn, Elbert F. Outlook 52:173 (1895). 12

"Pawnbroking in Europe and United States." Patterson, W. R. Bulletin Dept. Labor No. 21, p. 173, March, 1899. 13

Pekin, China.

"Streets of Peking, The." Scidmore, Eliza Ruhamah. Cent. 58:859 (Oct. 1899). 14

"Two Cities: London and Peking." Little, Archibald. Fireside, June, 1899. 15

Penig, Germany, Electrical Works. "Das städtische Elektrizitätswerk in Penig." Rühlmann, Richard. Zeitschr. d. Ver. Deutscher Ing. 43:1313 (Oct. 28, 1899). 16

Pennsylvania.

"Ballot Reform." Woodruff, Clinton Rogers. An. Am. Acad. Pol. Sci. 14:385 (Nov. 1899). 17

"Boroughs, Pennsylvania." Holcomb, William P. J. H. Univ. Studies IV:4 (1886). 50c. 18

——. "The Law of Boroughs, including the Rights and Duties of Borough Officers."

Pennsylvania—*Continued.*

Trickett, W. (2nd vol.) Philadelphia, T. & J. W. Johnson Co., 1893-8. 8vo, 381 pp. Cloth, $4. 19

" Corporations in Pennsylvania." Murphy, Walter. Philadelphia, Rees, Welsh & Co. 1891. 2 vols., 510-513 pp. $10. (The first volume deals with Municipal Corporations). 20

" Elections in Pennsylvania, Primary." Woodruff, Clinton Rogers. N. Y. Conference on Practical Reform of Primary Elections, p. 51. Chicago, Hollister, 1898. 8vo, 150 pp. Paper. 21

——. " Pennsylvania Election Laws." Bird, Albert A. The Citizen 1:14, 35, 61, 114, 132, 160 (1895), 2:54 (1896). 22

" Government in Pennsylvania, Local." Gould, E. R. L. J. H. Univ. Studies I:3. 25c. 23

——. " Government of Cities, Report of the Commissioners to devise a plan for the." Pennsylvania Legislature, Doc. No. 4, 1878. 216 pp. 24

" Legislation, Local and Special." Ann. Am. Acad. Pol. Sci. 14:269 (Sept. 1899).

" Poor Laws of Pennsylvania, A Treatise on the." Beitel, Calvin G. Philadelphia, T. & J. W. Johnson, 1899. 8vo, 607 pp. $6. 25

" Street Railways in Pennsylvania." Brown, I. B. St. Ry. Rev. 8:100 (Feb. 15, 1898); Sanders, Dallas. St. Ry. Rev. 7:591 (Sept. 15, 1897); anon. 16:1223 (Dec. 29, 1900). 26

" Tax Laws of Pennsylvania, Synopsis of the." Eastman, T. W. Harrisburg, 1892. 27

Pension Funds. (See also **Labor and its Relation to the Municipality** and **Schools**).

See also Belgium.

" City Retirement Funds." City Rec. 2:185 (March 16, 1899). 28

" Municipal and Other Pension Schemes." City Rec. 3:265 (April 26, 1900). 29

" Old Age Pension by Means of Municipal Dwellings." Thomas, E. Econ. R. 5:221 (1895). 30

Peoria, Ills.

" Electrolysis in Peoria." Maury, Dabney H. Engng. Rec. 41:467 (May 19, 1900). 31

" Laboratory, A Municipal Testing." Thompson, A. D. Pav. and Mun. Eng., Jan. 1896. 32

Lighting. " The People vs. Peoria Gas Light & Coke Company." Public Policy 3:414 (Dec. 29, 1900). 33

" Paving in Peoria." City Govt. 2:100 (April, 1897).

" Sewer System, Peoria, Ill., West Bluff." Thompson, A. D. Engng. News 37:50 (Jan. 28, 1897). 34

" **Perth [Aus.]**, The Electric Tramway System of." St. Ry. J. 16:336 (April 7, 1900). 35

" **Petrolea [Ont.]**, Water Works, The." Can. Eng. Nov. 1897.

Philadelphia.

City Government, General References.

Almanacs. " Philadelphia Record Almanac." Philadelphia, Published annually by the Philadelphia Record. Edition for 1899, 122 pp. 36

——. " Philadelphia Times Almanac." Philadelphia, Published annually by the Philadelphia Times. Edition for 1899, 70 pp. 37

——. " Public Ledger Almanac." Philadelphia, Published annually by the Philadelphia Public Ledger. Edition for 1899, 118 pp. 38

" Brooklyn and Philadelphia." Godkin, E. L. Nation 42:140 (1886). 39

" Bullit Bill, Reorganizing the Municipal Government of Philadelphia." Philadelphia, 1887. 36 pp. 25c. 40

" Charter Amendments, Philadelphia." City Govt. 1:154 (Dec. 1896).

" Citizen and the City, The." Bird, Albert A. The Citizen 2:100, 130, 167 (1896). 41

" Commercial Success; How it has been Gained in Glasgow, Liverpool, and How it May be Secured for Philadelphia." Philadelphia, Union Committee on Transportation, Manufacturing and Commercial Interests, 1894. 56 pp. 42

Philadelphia—*Continued.*

"Handbook for Philadelphia Voters." Brinley, Chas. A. (With an Introduction by E. J. James). Printed for the author, 1894. 210 pp. 50c. 43

History, Description and Statistics of Philadelphia, Penn., in 1880. Census. See 1-7.

"Letter to the People of Philadelphia." Lea, Henry C. Forum 2:532 (1887). 44

"Manual for Philadelphia Voters." Alcorn, W. B. Philadelphia, Town Ptg. Co. 45

"Municipal Affairs of Philadelphia." Welsh, Herbert (Editor). A regular department in City and State. 46

"New Philadelphia." Morris, Charles. Lippinc. 51:221 (1893). 47

"Officials of Philadelphia: Their Powers and Duties, The Public." Woodruff, Clinton Rogers. City & State Vol. 3, No. 17, p. 4 (Aug. 26, 1897), No. 18, p. 4 (Sept. 2, 1897), No. 19, p. 4 (Sept. 9, 1897), No. 21, p. 4 (Sept. 23, 1897), No. 22, p. 4 (Sept. 30, 1897). 48

"Philadelphia." Chap. XIV. in "The Land of the Dollar," by G. W. Steevens. New York, Dodd, Mead & Co., 1897. 12mo, 316 pp. $1.50. 49

"Philadelphia: What are its Needs?" Osborn, H. V. B. Pro. Eng. Club 17:24 (Feb. 1900). 50

"Reform in Philadelphia, Progress of Municipal." Woodruff, Clinton R. Hrprs. Wkly. 38:1019 (1894); Nation 70:159 (March 1, 1900). 51

Reform Organizations. "Civic Club of Philadelphia, The." Stevenson, (Mrs.) Cornelius. Address before the Club, March 3, 1894. Published by the Club, Good Govt. 14:5 (1894); Wetherill, Edith. Mun. Aff. 2:467 (Sept. 1898). 52

——. "Municipal League of Philadelphia." Ann. Am. Acad. Pol. Sci. 2:141 (1892); Woodford, Arthur Burnham. Social Economist 2:366 (1892); Woodruff, C. R. Am. J. Pol. 5:287 (1894). 53

"The City Government." Allinson, E. P., and Boies Penrose. J. H. Univ. Studies V:1 and 2, 1887; Members of Senior Class, Wharton School of Finance and Economy, 1893, 8vo, 300 pp. $1.50; Bullit, John C. Address before the Philadelphia Social Science Assoc. and C. S. R. A., Jan. 18, 1882, Philadelphia, Allen, Lane & Scott, 42 pp., 1882; Burnham, George, Jr. Pp. 185-187 Pro. of the Louisville Conf. for Good City Govt., 1897, see 6-18d.; Mercer, George Gluyas, p. 94. Proc. First Nat'l Conf. for Good City Govt., Philadelphia, 1894, see 6-18a; Hrprs. Wkly. 39:134 (1895). 54

"The City of Philadelphia: Its Stockholders and Directors." Richardson, Charles. Tract No. 1, Municipal League of Philadelphia Publications, 1883. 15 pp. 55

"Baths, Philadelphia Public." Kirkbride, Franklin B. Ann. Am. Acad. Pol. Sci. 11:127 (Jan. 1898); Lowrie, Sarah D. The Citizen 1:249 (1896). 56

"Bossism in Philadelphia, Fall of. History of the Committee of One Hundred." Vickers, George. Philadelphia, N. C. Boysen. 1883. 232 pp. 12mo. $1.15. See also Smalley, E. V. Cent. 4:395 (1883); Report of Committee. Pub. by Danda, 1884, 41 pp. 57

"Charity Problem in Philadelphia, The." Lindsay, Samuel McCune. The Citizen 2:263 (1896). 58

"Charitable and Educational Institutions and Societies in Philadelphia, Civic Club Digest of." With an introduction on the "Social Aspects of Philadelphia Relief Work" by Samuel McCune Lindsay. Philadelphia, Civic Club, 1895. 201 pp. $1.00. 59

"Councils of Philadelphia, City." Bird, Albert A. The Citizen 1:186 (1896); Sanitarian 11:305 (April, 1898). 60

"Department Store in the East, The: Large Stores in Philadelphia." Kirkpatrick, Samuel R. Arena 22:181 (Aug. 1899). 61

Elections. "The Philadelphia Nominating System." Branson, W. J. Ann. Am. Acad. Pol. Sci. 14:18 (July, 1899). 62

——. "Philadelphia Election Frauds." Woodruff, Clinton Rogers. Arena 24:397 (Oct. 1900), Ind. 52:3106 (Dec. 27, 1900). 63

Finance. "Ground Rents in Philadelphia." Allinson, E. P., and Boies Penrose. Philadelphia, Wharton School of Finance and Economy, 1889. 19 pp. 25 cts. 64

——. "Municipal Taxes of Philadelphia." Cochran, T. Penn. Mo. 2:221 (1871); Commons, John R. J. Pol. Econ. 3:434 (1895). 65

——. "Philadelphia's New Loan." Hoster, Wm. Johnson. Hrprs. Wkly. 41:1182 (Nov. 27, 1897). 66

Philadelphia—*Continued.*

"Harbor of Philadelphia, Improvement of the." Birkinbine, John. Eng. M. 9:839 (1895). 67

History. "Philadelphia, 1681-1887." Allinson, E. P., and Boies Penrose. J. H. Univ. Publications, Extra Volume III, 1887. $3.00. 68

——. "A Glimpse of Old Philadelphia." Weaver, Emily P. Lippinc. 59:557 (April 1897). 69

——. "Annals of Philadelphia and Pennsylvania in the Olden Time." Watson, John. Phila., Lippinc., 1845. 2 vols. 8vo. $7.50. 70

——. "History of Philadelphia, Pa." Williams, Talcott. See 1-4b. 71

——. "History of Philadelphia, 1609-1884." Scharf, J. T., and Wescott, Thompson. Phila., Everts, 1884. 3 vols. 8vo. $25.00. 72

Housing. "Homes for the People in Philadelphia." Bank, A. B. Am. J. Soc. Sci. 15:135 (1882). 73

——. "Tenement Houses in Philadelphia." Van Gasken, Frances. Philadelphia, Publications of the Civic Club, 1895. 8 pp. 74

"Laboratory, Cement, of the City of Philadelphia. Its Equipment and Methods." Humphrey, Richard L. Proc. Engrs. Club (Phila.) Nov. 1896. 75

Libraries. "Library of Philadelphia, The Free." The Citizen 1:227 (1895), 2:266 (1896). 76

Lighting. "Electric Lighting in Philadelphia." City and State Vol. I, (July 11, 1895); Swoope, C. Walton. Elec. W. & E. 35:279 (Feb. 24, 1900). 77

——. "Gas Works, Philadelphia." (A series of addresses in the 12th Annual Report of the Citizens' Municipal Ass'n of Phila., by William Potter, Wayne McVeagh, Edwin S. Stuart and Peter Boyd.) Phila., Citizens' Municipal Ass'n, 1898. Pamphlet. 78

——. Some Recent Municipal Gas History. Bemis, Edward W. Forum 25:72 (March 1898); Dodge, W. E. Elec. Eng. 25:207 (Feb. 24, 1898); Lewis, Wm. Draper. Q. J. Econ. 12:209 (Jan. 1898); Rogers, John I. Mun. Aff. 1:730 (Dec. 1897); Rowe, L. S., City and State 4:57 (Oct. 28, 1897); Ann. Am. Acad. Pol. Sci. 11:116, 301 (Jan., May, 1898); Speirs, Frederick W. Citizen 3:201 (Nov. 1897); Mun. Aff. 1:718 (Dec. 1897); Stallard, J. H. Star. Vol. 28, No. 3, p. 6 (Jan. 15, 1898), Overland 33:175 (Feb. 1899); Woodruff, Clinton Rogers. Hrprs. Wkly. 41:1038 (Oct. 16, 1897), Am. J. Sociol. 3:601 (March, 1898); anon. City Govt. 1:67 (1896); Prog. Age 15:414 (Sept. 15, 1897); Elec. R. 31:152 (Sept. 29, 1897); Mun. Rec. and Ad. Vol I, no. 17, p. 6 (Oct. 2, 1897); City and State (Editorials) (Oct. 7, 1897), City and State 4:23, 38 (Oct. 14, Oct. 21, 1897); Lit. Dig. 15:751 (Oct. 23, 1897); Prog. Age 15:521 (Nov. 15, 1897); City and State 4:104 (Nov. 18, 1897); Am. Gas Light J. 68:212 (Feb. 7, 1898); Prog. Age, 16:91 (March 1, 1898); City and State 4:591, 600 (May 26, 1898). 80

——. "The Philadelphia Gas Ring." Chapter 89, p. 404, Bryce's American Commonwealth. 81

"Mayor of Philadelphia, The." Bird, Albert A. The Citizen 1:233 (1895). 82

Parks. "Park Association of Philadelphia." Garden & F. 3:268 (1890), 6:248 (1893); Hrprs. Wkly. 40:107 (1896); St. Ry. J. 13:459 (Aug. 1897). 83

Party Politics. "Solid for Mulhooley." Shapely, Rufus E. Spofford and Shapely's Library of Wit and Humor. Philadelphia, 1884. 84

Paving. "Repaving the Streets of Philadelphia, Report of Experts on." J. Frankl. Inst. 118:210 (1884). 85

"Public Works, The Philadelphia Department of." Bird, Albert A. The Citizen 2:14 (1896). 86

Sanitation. "Health of Philadelphia." Billings, J. S. Forum 17:595 (1894); Bird, Albert A. The Citizen 2:206 (1896); Ford, W. H. Sanitarian 30:515 (1893). 87

Schools, Public. "Public School System of Philadelphia." Mumford, Mrs. Mary E. Published by the Civic Club, Philadelphia, 1894; Rice, J. M. Forum 15:31 (1893); Turner, W. L. Penn. Mo. 5:750 (1874). 88

——. "Story of a Woman's Campaign by the Civic Club for School Reform in the Seventh Ward of the City of Philadelphia." Williams, (Mrs.) Talcott. Pubs. of the American Academy, 1895. 89 pp. 50 cts. 89

——. "Suggestions of Reform in the Public School System of Philadelphia." Welch, Herbert, and others. Philadelphia, Civic Club Pamphlets, 1894. 31 pp. 90

Settlements. "University Settlements in Philadelphia." Fox, H. Lend a H. 11:43 (1893). 91

——. College Settlement. "Tenement House Work in St. Mary St." Fox, Han-

Philadelphia—*Continued.*

nah, and other pamphlets published by the College Settlement; anon. Ann. Am. Acad. Pol. Sci. 9:137 (March 1900). 92

Sewage. "Sewerage Reconstruction Necessitated by the Philadelphia & Reading Railroad Subway and Tunnel in Philadelphia." Atlee, Walter. Railroad Gaz. Dec. 18, 1896; Webster, George S., and Wagner, Samuel Tobias. Trans. Am. Soc. Civ. Eng. 84:129 (Feb. 1900). 93

——. "Drainage System of Philadelphia." Hering, R. Ecl. Engng. M. 18:429 (1878). 94

Slums of Philadelphia. See the Seventh Special Report of the Commissioner of Labor on "The Slums of Great Cities." 1894. 95

"Smoke Nuisance and Its Regulation. With Special Reference to the Conditions Prevailing in Philadelphia—Improved Furnaces and Mechanical Stokers, The." J. Frankl. Inst. 143:393 (June 1897), 144:17 (July 1897); Reviewed in Engng. News 38:111 (Aug. 12, 1897); J. Frankl. Inst. 144:401 (Dec. 1897), 145:1 (Jan. 1898), 145:107 (Feb. 1898), 147:244 (March, 1899). 96

"Statistics of Births, Deaths and Marriages, etc., 1861-72." Hough, J. S. Penn. Mo. 4:599 (1873). 97

——. "Vital Statistics of Boston and Philadelphia Covering a Period of Six Years ending May 31, 1890." Billings, John S. Washington Government Printing Office, 1895. 269 pp. Eleventh Census of the United States. 98

"Sweating System in Philadelphia." Goodchild, F. M. Arena 11:261 (1895). 99

——. "Report of the Committee of Manufactures on Sweating." H. R. Report 2309, 1893. pp. 34, 212 et seq. John De Witt Warner, Chairman. 100

Taxation. (See Finance above.)

Transit Facilities. "Philadelphia Street Railway and the Municipality." Bird, Albert A. The Citizen 1:256, 286 (1896); Haupt, Lewis M. Proc. of the Eng. Club, Phila. vol. 4, No. 3; Mawson, Harry P. Leslie's Wkly. 74:230 (1892); St. Ry. J. 14:691 (Nov. 1898). 1

——. "Street Railway System of Philadelphia; Its History and Present Condition." Speirs, Frederic W. Baltimore, J. H. Univ. Studies, Fifteenth Series, Nos. III-IV-V. March, April, May, 1897. 123 pp. Cloth, $1. Paper, 75 cts. 2

Water Supply of Philadelphia. Bird, Albert A. The Citizen 2:270, 299 (1896); Branson, W. J. City Govt. 7:11 (July 1899); Carr, William Wilkins. Phila., Buchanan, 46 pp., 1886; Haines, R. J. Frankl. Inst. 111:275 (1880); Hazen, Allen. Pamphlet reprinted from J. Frankl. Inst. for Nov. 1896, 19 pp.; Hooker, S. C. J. Frankl. Inst. 127:390, 129:411 (1890); Leffman, Henry. Proc. Engineers' Club of Phila. 10:24 (1893); Maignen P. J. A. Proc. Eng. C. 16:83 (March 1899); Maltbie, Milo Roy. Mun. Aff. 3:193 (June, 1899), San Rec. 24:363 (Oct. 27, 1899); Marburg, Edgar. Engng. Rec. 39:430 (April 8, 1899), Pro. Eng. Club 16:209 (May 1899); Smith, Edwin F. J. Frankl. Inst. (May, 1896), Pro. Eng. Club, Nov. 1896; Trautwine, John C., Jr. Engng. Rec. 38:428 (Oct. 15, 1898), Pro. Eng. Club 16:199 (May, 1899); Woodruff, Clinton Rogers. Forum 28:305 (Nov. 1899); anon. Engng. News, Feb. 27, 1896; Sanitarian, Nov. 1896; Mun. Engng. 11:353 (Dec. 1896); Engng. News 37:322 (May 27, 1897); City and State 4:223 (Jan. 6, 1898); Engng. Rec. 37:247 (Feb. 19, 1898); Engng. News 39:145 (March 3, 1898); Engng. Rec. 39:111 (Jan. 7, 1899); Fire & W. 26:58 (Feb. 25, 1899); Report Com. Manuf. Club. pamphlet, 16 pp. March 1899; Engng. Rec. 39:417 (April 8, 1899); Fire & W. 26:234 (July 22, 1899); Engng. Rec. 40:404, 433 (Sept. 30, Oct. 7, 1899); Engng. News 42:230 (Oct. 5, 1899); Engng. Rec. 40:449 (Oct. 14, 1899); Fire & W. 26:346, 352, 360 (Oct. 14, Oct. 21, Oct. 28, 1899); Engng. News 43:203 March 29, 1900). 3

——. "Report to Samuel H. Ashbridge, Mayor of the City of Philadelphia; on the Extension and Improvement of the Water Supply." Hering, Rudolph; Wilson, Joseph M.; Gray, Samuel M. Philadelphia, City of Philadelphia, 1899. 8vo, 123 pp. and maps. Free. Report summarized in J. Frankl. Inst. 148:390 (Nov. 1899). 4

——. "Water Works Management—Professional and Councilmanic." Trautwine, John C., Jr. Pp. 136-143 in "Proceedings of the 20th Annual Meeting of the American Water Works Association, Richmond, Va., May 15-18, 1900." 8vo, 216 pp. Cloth, $1. 5

Philippine Islands.

"El regimen municipal en las Islas Filipinas." Paterno, P. A. Madrid, Sucesores de Cuesta, 1893. 280 pp. 7 pes. 6

Pirna on the Elbe, Ger. "Volksbad in Pirna an dem Elbe." Deutsche Bauzeitung March 23, 1898. 7

Pittsburgh, Pa.

City Government, General References.

Almanac. "Pittsburg Press Almanac and Cyclopedia." Pittsburg, published quarterly by the Pittsburg Press. Edition for first quarter, 1899. 576 pp. Yearly, 50 cts. 8

History, description and statistics of Pittsburgh, Penn., in 1880. Census. See 1-7. 9

"Municipal Condition of Pittsburgh." Guthrie, Geo. W. p. 146, Proc. Third Natl. Conf. for Good City Govt. See 6-18c; also p. 336, Proc. of the Second Natl. Conf. 1895, see 6-18b; McClintock, Oliver. Proc. Indianapolis Conf. p. 257, 1898, see 6-18e; Woodruff, Clinton Rogers. Ann. Am. Acad. Pol. Sci. 13.415 (May 1899). 10

"The Rise of Pittsburgh." Logan, Charles T. Leslie's Pop. Mthly., Sept. 1897. 11

"Amalgamation." Ann. Am. Acad. Pol. Sci. 16:483 (Nov. 1900). 12

"Bath-House, A Pittsburg." Engng. Rec. 37:414 (April 9, 1898); City Rec. 1:235 (April 14, 1898).

"Fire, The Pittsburgh." Engng. Rec. May 22, 1897. Engng. News 37:313 (May 20, 1897); Arch. & Buil. 26:279 (June 12, 1897). 13

——. "An Instructive Fire in Pittsburg, Pa." Engng. Rec. May 22, 1897. 14

——. "Fireproof Building Construction in the Pittsburg, Pa., Fire." Engng. News. 37:313 (May 20, 1897); Arch. & Buil. 26:279 (June 12, 1897). 15

"History of Pittsburgh, Pa." Church, S. H. See 1-4b. 16

Settlements. Kingsley House. Char. R. 7:784 (Nov. 1897); Arena 24:193 (Aug. 1900). 17

"Street Railways of Pittsburgh and Allegheny, Pa." St. Ry. J. May 1890, p. 254; Oct. 1891, p. 1; Fairchild, C. B. Elec. Eng. 26:54 (July 21, 1898). 18

"Water Supply of Pittsburgh and Allegheny City, Pa." Harlow, James H. Proc. of the Eng. Soc. of Western Penn. March, 1893; Engng. Rec. June 19, 1897. 19

——. "Report of the Filtration Commission of the City of Pittsburg, Pa." City of Pittsburgh, Jan. 1899. 8vo, 393 pp. With maps and plans. Report discussed Engng. News 41:123 (Feb. 23, 1899); Engng. Rec. 39:230 (Feb. 11, 1899). 20

——. "The Experimental Filter Plant at Pittsburgh." Knowles, Morris. J. Assoc. Engng. Soc. 25:217 (Nov. 1900). 21

Plainfield, N. J.

"Sewerage and Sewage Disposal Systems of Plainfield, N. J." Gavett, A. J. New York, Engineering News Co. 1896. Pamphlet, 32 pp. 25 cts. (Reprinted from Engng. News of Sept. 10, 1896.) 22

——. "Notes on the Operation of the Sewage Filter Beds of Plainfield, N. J." Engng. News 41:162 (March 16, 1899). 23

Plymouth, Eng.

"Lighting and Tramways System, Plymouth, Eng." Elec. R. 35:129 (Aug. 30, 1899); St. Ry. J. 15:589 (Sept. 1899); Elec. W. and E. 34:847 (Dec. 2, 1899). 24

"Municipality of Plymouth." Mun. J. & London 8:1211 (Nov. 10, 1899).

"Water Works, Plymouth." Engng. (London) 66:394 (Sept. 23, 1898); Engng. Rec. 39:181 (Jan. 28, 1899).

"**Plymouth, Mass.**, History of." Watson, Ellen. See 1-4a. 25

Police.

See also Baltimore, Berlin, France, Germany, Indiana, Italy, London, Los Angeles, Michigan, Newark (N. J.), New York City, New York State, Paris, Prussia, Scotland under United Kingdom, United States.

"Abuse of the Police Power, The." Kudlich, Herman C. Forum 24:487 (Dec. 1897). 27

"Charity, The Department of Police as a Means of Distributing." Campbell, A. F. Open Court 11:333 (June 1897). 28

"Classes for Policemen, Municipal." Mun. J. & London 8:998 (Sept. 8, 1899). 29

"Crime, How to Protect a City from." Byrnes, T. No. Am. 159:100 (1894). 30

Police—*Continued.*

"Criminal, The." Ellis, Havelock. London, Scott, 1890. 337 pp. 3s. 6d. 31

Criminals. (See also International Congress under **Charities.**)

"Ethnology of the Police." Roosevelt, Theodore. Munsey's June 1897. 32

"Etudes de physiologie social, La Police." Guyot, Yves. Paris, G. Charpentier, 1882. 3 fr. 50c. 33

"Juvenile Offenders, The Value of Discrimination in Dealing with." Putnam, Elizabeth C. P. 100 "International Congress," see 43-99. 34

"Mysteries of Police and Crime." Griffiths, Arthur. New York, G. P. Putnam's Sons, 1899. 8vo, 2 vols., 495 & 483 pp. Cl., $5.00. 35

"Nature and Sphere of Police Power." Woolsey, T. D. J. Soc. Sci. 97:114 (1871). 36

"Notes of an Itinerant Policeman." Flynt, Josiah. Boston, L. C. Page & Co., 1900. 8vo, 252 pp. 37

"Ordinances, Municipal Police, Treatise on the Power to Enact, the Passage, Validity and Enforcement of." Bemis, Alton A., and Nelson T. Horr. Cincinnati, R. Clark, 1887. 312 pp. $4.00. 38

"Pauperism and Crime." Weber, John B. P. 131 "International Congress," see 43-99. 39

"Police." Loening, Edgar. Lalor's Cyclopedia, Vol. III, pp. 206-12, see 1-1. 40

"Police Control of Dangerous Classes Other Than by Criminal Prosecutions." Tiedeman, Christopher G. Am. Law R. 19:547 (1885); (Chap. V, "Limitations of Police Power.") 41

"Police and Prison Cyclopedia." Hale, Geo. W. Boston, The W. L. Richardson Co., 2d edition, 1894. 792 pp. $4.00 net. 42

"Police Problem, The." Balch, William R. Internat. R. 13:507 (1882); anon. Hrprs. Wkly. 43:1202 (Dec. 2, 1899). 43

"Problem of Police Administration, The." Moss, Frank. Forum 27:278 (May 1899). 44

"Public Health, Police Power and." Black, H. C. Am. Law R. 25:170 (1891). 45

"Punishment and Reformation, an Historical Sketch of the Rise of the Penitentiary System." Wines, Frederick Howard. New York, T. Y. Crowell, 1895. 8vo, 339 pp. $1.75 46

"Reform, Police." Lend a H. 8:43 (1892). 47

"State Oversight of Police." Moss, Frank. Mun. Aff. 3:264 (June, 1899). 48

"State of Prisons and of Child-Saving Institutions in the Civilized World." Wines, E. C. Cambridge University Press, 1830. 8vo, 719 pp. 25s. 49

"Telegraph System, Model Police." City Govt. 4:11 (Jan. 1898). 50

Political Assessments, Politics, Party Politics, Exclusion of Politics from Municipal Affairs. (See under **Parties**, also under **Elections, Bossism.**)

"**Pompeii**—A City of the First Century." Adams. Can. Arch. March, 1898. 51

"**Ponce, Puerto Rico,** The Gas Works at." Hough, D. L. Am. Gas Light J. 71:769 (Nov. 13, 1899). 52

Poor in Cities. (See under **Charities**).

Population, Growth of Cities, Decrease of Rural Population. (See also **Housing** and **History**).

See also Austria, Belgium, Boston, Chicago, England under U. K., France, Frankfurt a. M., Germany, London, Massachusetts, New York, Paris, United Kingdom, United States.

Abnormal Growth of Great Cities. Farrar, F. W., in article "Some Problems of the Age." No. Am. 161:412 (1895). 53

"Advantages and Disadvantages, Town Life." Pp. 142-169 of Chas. H. Pearson's "National Life and Character." London, Macmillan, 1893. 8vo, 357 pp. 10s. 54

Ancient Cities. "Die Uebervölkerung der antiken Grossstädte." Pöhlmann, R. Leipzig. Jablonowikischen Ges., 1884. 55

"Congestion of Population in Cities." New York, Publications of the Assoc. for Improving the Condition of the Poor, No. 3, 1896. 61 pp. 10c. 56

——. "Congestion of Cities." Hale, E. E. Forum 4:256 (1888). 57

——. "Felix qui causam rerum cognovit." Lowell, Josephine Shaw. Char. R. 2:420 (1893). 58

Population, Growth of Cities—*Continued.*

——. "Overcrowding in Cities." Potter, E. T. Am. Arch. 26:156, 266 (1889). 59

——. "Pauperism and Overcrowding." Crooks, W. Mun. J. 9:305 (April 20, 1900). 60

——. "Remedies for Overcrowding of Population." Nation 46:379 (1888). 61

——. "To-morrow: A Peaceful Path to Reform." (Plan to draw population from overcrowded cities). Howard, Ebeneezer. London, Swan, S. & Co., 1900. Book reviewed, Humanitarian 16:117 (Feb. 1900). 62

——. (See also under **Housing**). 63

"Decadent Tendencies of City Life, Some." Ferguson, F. L. Presbyterian Quarterly (Richmond, Va.), April, 1897. 64

"Decrease of Rural Population." Rose, John C. Nation 52:333 (1891). Pop. Sci. Mo. 42:621 (1893). 65

——. "Agricultural Conditions and Needs." New York, Publications of the Association for Improving the Condition of the Poor, 1896. 61 pp. 10c. 66

——. "Analysis of Agricultural Discontent in the United States." (Statistics of urban and rural wealth and population in the U. S.) Emerick, C. F. Pol. Sci. Q. 11:435 (Sept. 1896). 67

——. "Back to the Land: An Inquiry into the Cure for Rural Depopulation." Moore, H. E. London, Methuen & Co., 1893, 216 pp. 2s. 6d. 68

——. "Crowding of Cities: The Flight from the Fields." Gaye, A. Macmil. 65:293 (1891). 69

——. "Depopulation." Pp. 551-560, Vol. I. Palgrave. See 1-2. 70

——. "Doom of the Small Town." Fletcher, Henry J. Forum 19:214 (1895). 71

——. "Du Progrès des Agglomérations Urbaines et de l'Emigration Rurale." Legoyt, Alfred. Paris, L'auteur, 60, rue Saint-Dominique, 1870. 8vo, 280 pp. 5 fr. 72

——. "Emigration de la Population des Campagnes dans les Villes." Gower, F. Leveson. Jour. des Economistes 27:338 (1896). 73

——. "Farm Villages." Waring, Geo. E. Scrib. M. 13:756 (1877). 74

——. "Rural Exodus, The." Graham, P. Anderson. London, Methuen & Co., 1893. 216 pp. 2s. 6d. 75

——. "Wohnungsnot oder Uebervölkerung d. Städte und Entvölkerung des Landes." Weinstein. Berlin, Bibliogr. Bur., 1893. 76

"Democratic Institutions, Great Cities and." Pickard, C. E. Am. J. Pol. 4:378 (1894). 77

"Distribution of Population of Cities." Hammond, M. B. Am. Statis. Assoc. 4:113 (1895). 78

——. "What are the Principles which regulate the Distribution of Inhabitants into Farms, Villages, Hamlets, Towns and Cities." Steuart, Sir James. "Inquiry into the Principles of Political Economy." Ch. IX, Vol. I, "Works of Steuart," edited by J. Steuart, London, 1805. 6 vols. 8vo. 79

Duration of Life. "Die Lebensfähigkeit d. städtischen und ländlichen Bevölkerung." Ballod, Paul. Leipzig, Duncker u. Humblot, 1897, 93 pp. 2.20m 80

——. "Städtesorgen, Gespräche über die das Leben der Städtbewohner verkürzende Faktoren." Volkmer, Volkher. Strassburg, Strassburger Druckerei u. Verlagsanstalt, Schultz & Co., 1897. 8vo, 54 pp. 1m. 50 pf. 81

——. "Ueber den Einfluss des städtischen Lebens auf die Volksgesundheit." (Aus Centralblatt f. allg. Gesundheitspfl.) Kruse, W. Bonn, E. Strauss. 8vo, 79 pp. M. 1.60. 82

"Farm and the City, The." Besant, Walter. Eclectic M. 67:151 (Feb. 1898). 83

"Geography and Sociology." (With Bibliography). Ripley, W. Z. Pol. Sci. Q. 10:636 (1895). 84

"Great Cities." Hibbard, George S. Lend a H. 7:155 (1891). 85

Growth of Cities. Haupt, Lewis M. Cosmopol. 14:83 (1892), Pro. Eng. Club, Philadelphia, Vol. IV, No. 3; Fletcher, H. J. Forum 19:737 (1895); James, Edmund J. Ann. Am. Acad. Pol. Sci. 13:1 (Jan. 1899); Means, D. MacG. Nation 61:92 (1895); Tracy, Roger S. Cent. 55:79 (Nov. 1897); Viele, Egbert L. Pub. Imp. 1:1 (May 1, 1899); Walker, J. B. Cosmopol. 9:62 (1891); anon. Eng. Ill. M., No. 190, p. 361 (July, 1899), Pub. Opin. 15:501 (1893). 86

——. "Des Agglomérations urbaines dans l'Europe contemperaine. Essai sur les Causes, les Conditiones, les Conséquences de leur Développement (thése)." Meuriot, Paul. Paris, 1897. 8vo, 475 pp. 20 fr. 87

Population, Growth of Cities—*Continued.*

——. "Des Développements Urbains dans les Grandes Villes Européennes." Artibal, J. R. Municipale 3:1709 (Nov. 18, 1899). 88

——. "Growth of Cities in the Nineteenth Century, The: A Study in Statistics." Weber, Adna Ferrin. New York, Columbia University, 1899. 8vo, 495 pp. Cloth, $3.50. 89

——. "Growth of Cities in Germany and America." Hamilton, James H. Our Country 5:193 (June, 1897), 6:177 (Dec. 1897). 90

——. "Party Politics, City Growth and." Springer, Wm. N. Forum 10:472 (1890). 91

——. "Political Consequences of City Growth, The." Rowe, L. S. Yale R. 9:20 (May, 1900). 92

——. "Tendency of Men to Live in Cities, The." Kingsbury, F. J. J. Soc. Sci. 33:1 (Nov. 1895). 93

——. "Stadt und Land unter dem Einfluss der Binnenwanderung." Wirminghaus, A. Jr. Nat. Stat. 64:1-34, 161-182 (1895). 94

——. "Der Zug nach der Stadt." Rauchberg, Heinrich. Statistische Monatschrift (Vienna) 19:127 (1893). 95

——. "Der Zug nach der Stadt. Statistische Studien über Vorgänge der Bevölkerungsbewegung im Deutschen Reiche." Kuczynski, R. Stuttgart, Verlag der J. G. Cotta'schen Buchhandlung, 1897. 8vo, 284 pp. 96

"Immigration to Cities, Decline of." Cannon, E. National 22:624 (1894). 97

"Land Depression, City Slums." Ingham, J. A. London, Swan S. & Co., 1889. 122 pp. 98

Location of Cities. Cooley, C. H. Ch. X in "Theory of Transportation." Am. Econ. Assoc., Publications 9:233-370 (May, 1894). 99

——. "Der Verkehr und die Ansiedelungen der Menschen in ihrer Abhängikeit von der Gestaltung der Erdoberfläche." Kohl, J. C. Dresden u. Leipzig, Arnold'sche Buchh., 1843. 100

——. "Ueber die geographische Lage der grossen Städte." Roscher, Wilhelm. Ch. VIII, p. 317, Vol. I, "Ansichten der Volkswirtschaft." Leipzig, C. F. Winter, 3d. ed., 1878. 8vo, 386 and 493 pp. 1

"Machinery and the Modern Town." (Population of Cities as Affected by Modern Industrial Development). Ch. XIII. pp. 324-50 of John A. Hobson's "Evolution of Modern Capitalism." New York, Scribners, 1894. 8vo, 388 pp. $1.25. 2

"Proportion between Urban and Rural Population." de Molenari, G. Lalor's Cyclopedia, Vol. I, pp. 468-73, see 1-1. 3

"Racial Geography of Europe, The. Urban Problems." Ripley, William Z. Pop. Sci. Mo. 52:591 (March, 1898). 4

"Shall the City Grow Haphazard or be Shaped by Intelligence?" Hamilton, James H. Our Country 5:161 (May, 1897). 5

Statistics. "Die Bevölkerung der Erde. Periodische Übersicht üb. neue Arealberechnungen, Gebietsveränderungen, Zählgn. u. Schätzgn. der Bevölkerung auf d. gesammten Erdoberfläche." Wagner, Herm. u. Supan, Alex. Gotha, 1893. 130 pp. 7m. (Earlier volumes edited by E. Behm and H. Wagner). 6

Transportation, Effect of, on Population. "De la Transformation des Moyens de Transport et ses Conséquences économiques et sociales." de Foville, A. Paris, Guillaumin et Cie., 1880. 8vo, 7 fr. 50c. 7

——. "Die Lage der Städte und der Verkehr: Die Städte als geschichtliche Mittelpunkte." Vol. II, pp. 464-509 of Fredrich Ratzels' "Anthropo-Geographie." Stuttgart, J. Engelhorn, 2d. vol., 1891. 8vo, 781 pp. Vols. 1 & 2. 28m. 8

——. "Die Verkehrsmittel in Volks- und Staatswirtschaft." Sax, E. Vienna, 1878, 2 vols. 8vo. 23m. 9

Urban Populations. Billings, R. C. Fortn. 59:388 (1893); Wright, Carroll D. Pop. Sci. Mo. 40:459 (1892); anon. Leslie's Wkly. Supp., Aug. 3, 1890. 10

——. "Die drei Bevölkerungsstufen, ein Versuch die Ursachen für das Blühen und Altern der Völker nachzuweisen." Hansen, Georg. München, Lindauer, 1889, 8vo, 407 pp. 7m. 11

——. "France, Populations urbaines en—comparées à celles de l'étranger." Levasseur, E. Paris, Picard, 1877. 12

——. "Om Byerne og Landt, i deres indbyrdes forhold med hensyn til Befolkring og Produktion." Gamborg, J. Christiana, 1877. 13

——. "Staat und Land." Vol. I, p. 333. "Reden und Aufsatze." Rümelin, Gustav. Freiburg, Mohr, 1875. 8vo, 454 pp. 14

LIBRARY OF THE UNIVERSITY

Population, Growth of Cities—*Continued.*

"Statistics and Economics, Urban and Rural Population." Mayo-Smith, Richmond. Am. Econ. Assoc. Pubs. 3:264-7 (1888), pp. 365-72 "Statistics and Sociology." New York, Macmillan, 1895. 8vo, 399 pp. $3. 15

"**Portland, Eng.**, The Water Works of." Engng. Rec. 41:32 (Jan. 13, 1900). 16

Portland, Me.

"History of Portland, Me." Pickard, Samuel T. See 1-4a. 17

——. History, Description and Statistics of Portland, Me., in 1880. Census. See 1-7. 18

"Street Railways of Portland, Me., and Vicinity, The." Fairchild, C. B. St. Ry. R. 10:483 (Sept. 15, 1900). 19

Portland, Ore.

"Municipal Condition of Portland." Strong, Thomas N. P. 432, Proc. Second Nat'l Conf. for Good City Govt., 1895. See 6-18b. 20

"Street Railway System of Portland." St. Ry. Jour. May, 1893, p. 297. 21

Portugal.

Local and Municipal Government in Portugal. Demombynes. Vol. I, pp. 505-533. See 2-11. 22

——. Gemeinde- und Districtsverwaltung. de Medeiros, J. J. Tavares. V. Abschnitt pp. 61-80, Vol. IV, 1, 8 Marquardsen. See 2-9. 23

"**Potato Patch, The.**" (See under **Vacant City Lots, Cultivation of in Cities**). 24

"**Potsdam** [**Ger.**], Electric Locomotives at." Ry. World 7:9 (Jan. 1898). 25

"**Poughkeepsie, N. Y.**, Slow Sand Filtration at." Engng. News 39:179 (March 17, 1898). 26

Prenzlau, Ger., Water Works. "Das Wasserwerk der Stadt Prenzlau." Scheven, H. Zeitschr. d. Ver. Deutschr. Ing. 44:33 (Jan. 13, 1900). 27

"**Preston** [**Eng.**], The Progress of." Toulmin, George. Mun. J. 9:323 (April 27, 1900). 28

Primary Elections. (See under **Elections**).

"**Princeton, N. J.**, History of." Sloane, W. M. See 1-4b. 29

Prisons, Municipal. (See under **Police**).

Proportional Representation, Minority Representation, etc.

See also Belgium.

"Bibliography of Proportional Representation." Commons, John R. Pro. Rep. Rev. 1:58 (1893); also p. 92 of his "Proportional Representation." 30

——. "Reference List on Proportional Representation." Monthly Bulletin of the Providence (R. I.) Public Library, Vol. 2, No. 12, Dec. 1896. Pp. 275-279. 31

"Cumulative Vote, Municipal Reform in New York and the." Law Magazine and Review n. s. 1:206 (1872). 32

"Election of Representatives, Parliamentary and Municipal, Treatise on the." Hare, Thomas. London, Longmans, 1st ed. 1859. 8vo, 380 pp. 7s. 33

"Legal Disfranchisement." Cooley, Stoughton. Atlan. 69:542 (1892). 34

"Machinery of Representation." Hare, Thomas. London, 2d. ed., 1857. 8vo, 55 pp. 35

"Minorities, Representation of." Laffitte, J. P. Revue Bleue Jan. 23, 1897. 36

——. "Political Reform by the Representation of Minorities." With bibliography, pp. 180-188. Forney, Matthias Nace. New York. Published by the author. 1894. 199 pp. 37

Municipal Councils. "La Représentation Proportionnelle dans les Conseils Municipaux." Rendu, Ambroise. R. Municipale 3:1945 (March 3, 1900). 38

Proportional Representation, Etc.—*Continued.*

"Municipal Election at Large, and Proportional Representation." Adams, Charles Francis. Pro. Rep. Rev. 2:48 (1894). 39

Municipal Reform by Proportional Representation. Adams, Charles Francis. Prop. Rep. R. 1:69 (1894); Forney, M. N. The Citizen 1:278 (1896); Foulke, William Dudley. Pro. Indianapolis Conf. Good City Govt., 1898, see 6-18e, Prop. Rep. R. 1:37 (1893); Jenks, Jeremiah W. Pro. Minn. Conf. for Good City Govt., 1894, see 6-18a, Pro. Phila. Conf., 1895, see 6-18b; Spence, C. H. Arena 10:767 (1894); Whitney, J. Eugene. Am. M. Civics 8:127 (1896). 40

"Objection to Proportional Representation." Naville, E. R. Pol. et Par. April 10, 1897. 41

"Preferential Voting." Pp. 484-487 in "The City for the People or the Municipalization of the City Government and of Local Franchises." Parsons, Frank. Philadelphia, C. F. Taylor, 1900. 8vo, 597 pp. Cloth, $1. 42

Proportional Representation, General Articles on. Commons, John R. Twentieth Cent. serial, beginning June 29, 1893, Soc. Econ. 7:28 (1894); Cooley, Stoughton. New Eng. M. 8:116 (1893); Horton, S. D. Am. Law R. n. s. 6:255 (1885); McCracken, W. D. N. Eng. M. 9:698 (1894), Arena 7:290 (1893); pp. 1123-1127 Encyc. Soc. Ref., see 1-3. 43

——. "Proportional Representation." Commons, John R. New York, Thomas Y. Crowell & Co., 1896. 298 pp. $1.75. (Chapter VIII, p. 197, on "City Government." Bibliography of Proportional Representation, p. 292). 44

——. "Proportional Representation." Forney, Matthias N. New York, E. W. Johnson, 1900. 12mo, 61 pp. Paper, 25c. 45

——. "Proportional Representation." Pp. 474-483 in "The City for the People or the Municipalization of the City Government and of Local Franchises." Parsons, Frank. Philadelphia, C. F. Taylor, 1900. 8vo, 597 pp. Cloth, $1. 46

——. "Proportional Representation." Moffett, S. E. Ch. XIII, p. 167, "Suggestions on Government." Chicago, Rand, McN. & Co., 1894. 12mo, 200 pp. $1. 47

"Representation of Interests." Commons, John R. Ind. 52:1479 (June 21, 1900). 48

Prostitution.

See also Berlin, Chateau Gontier, France, Geneva, Hamburg, Italy, Liepsic, London, New York, Paris, Rio de Janeiro, Vienna, Zürich.

History, Statistics and Regulation of Prostitution. "Zur Geschichte, Statistik und Regelung der Prostitution." Hügel. Wien, Typo. Lit. Art. Anstalt, 1865. 1 m. 10 pf. 49

——. "Histoire de la Prostitution chez tous les peuples du monde depuis l'antiquité le plus reculée jusqu'à nos jours." Dufour, Pierre. Paris, Seré, editeur, 1851-1853. 6 vols. 8vo. 50

——. "History of Prostitution. Its Extent, Causes and Effects throughout the World." Numerous notes and appendix relative to New York Prostitution. Sanger, W. W. New York, The Medical Pub. Co., 1898. 8vo, 709 pp. 51

——. "Die Prostitution in neunzehnten Jahrhundert v. sanitätspolizeil. Standpunkt u. d. Vorbeugung d. syphilis." Kühn, Julius, neu bearbeitet von Eduard Reich. Leipzig, Barsdorf, 1888. 8vo, 243 pp. 52

——. "State Iniquity, History of the System of State Regulated and Licensed Vice." Scott, Benjamin. London, Kegan, Paul, Trench, T. & Co., 1890. 401 pp. 3s. 6d. 53

"Laws Favoring Immorality." Flower, B. O. Arena 11:56, 167, 399 (1894-5). 54

Legal Regulation of Prostitution. "Frage der staatl. Regulirung der Prostitution." Forel, Aug. Bremerhaven, 1892. 50 pf. 55

——. "A Comparative Survey of Laws in Force for the Prohibition, Regulation and Licensing of Vice in England and other Countries." (Contains texts of many laws and an historical account of English laws on the subject.) Amos, Sheldon. London, Stevens and Sons, 1877. 542 pp. 18s. 56

——. "Der Staat in d. Prostitutionsfrage." Eckstein, Ant. Leipzig, Centralverbandes der Haus u. städtischen Grundbesitzer Vereine, 1891. 75 pf. 57

——. "Gefahren der Prostitution und ihre gesetzliche Bekämpfung mit bes. Berücksichtigung d. zürcherischen Verhältnisse." Zehnder, C. Zürich, Albert Müller, 1891. 247 pp. 8vo. 58

——. "Réglementation der Prostitution." Moeller. Bulletin d. l'Acad. Roy. de Medicine de Belgique, 1886. 59

Prostitution—*Continued.*

——. "Zu dem Kampfe gegen die Reglementirung der Prostitution." Schlesinger-Eckstein, Therese. Neue Zeit 17:365 (June 17, 1899). 60

"Municipalities and Vice." Mun. Aff. 4:698 (Dec. 1900). 61

Prostitution. Pp. 1127-1134 Encyc. Soc. Ref., see 1-3; Renck, Vol. V, pp. 295-306 Conrad, see 2-10. 62

——. "Die Prostitution und ihre Bekämpfung." Stursberg. Düsseldorf, 1892. 63

——. "La Prostitution." Guyot, Yves. Paris, G. Charpentier, 1883. 598 pp. 3 fr. 50c. 64

——. "La Prostitution, saggio di statistica morale." Tammeo, G. Torino, L. Roux e C., 1890. 324 pp. (Appendici: Regolamento sulla prostituzione). L. 4. 65

Reform of Police Measures against Prostitution. "Zur Austilgung der Syphilis, abolitionistische Betrachtungen über Prostitution, Geschlechtskrankheiten und Volksgesundheit nebst Vorschlägen zu einem Syphilisgesetz." (M. 7 Curventafeln.) Kromayer, Ernst. Berlin, Bomtraeger, 1898. 8vo, 105 pp. 3m. 50 pf. 66

——. "Die Bestrafung und polizeiliche Behandlung der Gewerbmässigen Unzucht." Schmölder. Düsseldorf, Voss & Co., 1892. 8vo, 84 pp. 1m. 60 pf. 67

——. "Die Prostitution: Ansichten und Vorschläge auf dem Gebiete des Prostitutionswesens." Mueller, Eugen. München, Münchner Medizinische Abhandlungen. 1892. 68

——. "Prostitution und Abolitionismus." Tarnowsky. Hamburg u. Leipzig, Voss, 1890. 8vo, 222 pp. 5m. 69

Providence, R. I.

City Government, General References.

"Advance Club of Providence, R. I., Aims and Objects of the." Thompson, David M. Publications of the Club No. 6, 1891. 70

"Almanac, Providence Journal." Providence, Published annually by the Providence Journal. Edition for 1899, 96 pp. 10c. 71

"Charter, City." Wilson, George G. Ann. Am. Acad. Pol. Sci. 13:128 (Jan. 1899). 72

"Commercial Advantages of Providence, The." Miller, Joseph A. Advance Club Pubs. No. 4, 1891. 73

History, Description and Statistics of Providence, R. I., in 1880. Census, See 1-7. 74

"Municipal Condition of Providence, R. I." McGuinness, Edwin D. Pages 154-163 "Pro. of the Louisville Conference for Good City Government, etc." 1897. See 6-18d. Reprinted City Govt. 2:173 (June, 1897). 75

"Electrolysis in Providence, R. I." Engng. Rec. 42:106 (Aug. 4, 1900). 76

"Fire Service System at Providence, R. I., New High Pressure." Mun. Engng. 14:195 (April, 1898); City Govt. 4:133 (April, 1898). 77

"History of Providence, R. I." Weeden, William B. See 1-4a. 78

——. "Government of Providence, Town and City, 1636-1889." Wilson, George G. Providence, Preston and Rounds, 1889. 77 pp. Paper, $1. 79

"Lighting of Providence, R. I." Snow, J. Lippit. Advance Club Leaflets Nos. 2 and 3, 1881. 80

"Park System of Providence, R. I." Robbins, M. C. Garden & F. 5:590 (1892). 81

"School System, The Investigation of the Public." Wilson, George W. Ann. Am. Acad. Pol. Sci. 14:386 (Nov. 1898). 82

Sewers, Maintenance of. Aldrich, Allen. Engng. News 41:194 (March 30, 1899), Engng. Rec. 39:372 (March 25, 1899); Waring, G. E. Am. Arch. 17:43, 53 (1885). 83

Water Supply. "Test of a Mechanical Filter, East Providence, R. I." Engng. Rec. 40:96 (July 1, 1899). 84

Prussia. (See under **Germany**).

Public Comfort Stations, Latrines. (See also under **Baths**).

See also Berlin, Boston, Düsseldorf, London, Paris.

Latrines. "Latrines Publiques et Privées avec Ecoulement direct à l'Egout à Paris." Barré, L. A. La Semaine des Const. p. 486, 1884-5. 85

——. General Articles. Anon. La Semaine des Const. p. 376, 413, 438, 510, 1876-77, p. 29, 1881-2. 86

Public Comfort Stations—*Continued.*

——. "Nouveaux Types de Latrines Publiques et Privées avec Ecoulement direct à l'Egout, Système Durand-Claye." Nouv. Annales de la Const. p. 86, 1885. 87

——. "Oeffentliche Abortanlage." Baugwbe. Jahrg. 1, p. 29. 88

——. "Ueber öffentliche Urinalanstalten." Dietrich, E. Wochbl. f. Baukde. p. 411, 1886. 89

Public Comfort Stations. "Oeffentliche Bedürfnissanstalten." Herzberg, E. Baugwks.-Ztg. pp. 522, 637, 1888; anon. Deutsches Baugwks.-Bl. p. 439, 1889. 90

——. "Ueber Closet-Häuschen." Wiener Bauind.-Ztg., Jahrg. 3, p. 454. 91

Public Health. (See **Sanitation**).

Public Works. (See **Engineering**).

"**Pullman, Ills.**, Sewage Farm at." Williams, Benezette. J. Assoc. Engng. Soc. 1:311 (1881). 92

"**Purleigh [Eng.]**, Water Works, Inauguration of the." Surveyor 17:677 (June 22, 1900).

Quasi-Public Works. (See under **Municipal Control, Municipal Ownership**).

Quebec.

"Quebec: The Gibraltar of America." Stewart, George. Self-Cult. 9:601 (Aug. 1899). 93

"Railway System of Quebec, The Electric." St. Ry. J. 15:495 (Aug. 1899).

——. "Conditions of Operation of Street Cars in the City of Quebec." Blair, D. E. St. Ry. R. 10:590 (Oct. 15, 1900). 94

"**Quincy, Ill.**, Settling Reservoir, The." Gwinn, Dow R. Engng. Rec. 38:8 (June 4, 1898). 95

Quincy, Mass.

"A New Departure." Godkin, E. L. Nation 55:197 (1892). 96

"Centennial Milestone of Quincy, Mass., The." Adams, Charles Francis. Cambridge, Mass., John Wilson and Sons, 1892. 97

"Lessons in Municipal Government from the Experience of Quincy, Mass." Adams, Charles Francis. Forum 14:282 (1892). 98

Railways. (See **Transit Facilities** and **Population**).

"**Ramsgate [Eng.]**, Reviewed." Mun. J. 9:657 (Aug. 24, 1900). 99

Rapid Transit. (See under **Transit Facilities**).

Reading, Pa.

"Electrolysis in Reading, Pa." Knudson, A. A. Engng. Rec. 42:443 (Nov. 10, 1900). 100

Sewage. "Improved Methods for the Purification of Sewage and Water, as Shown in the Operation of the Municipal Plant at Reading, Pa." Deery, John Jerome. Frankl. Inst., 148:227, 279 (Sept., Oct. 1899). 1

"Water Filtration at Reading, Pa." Engng. Rec. 37:534 (May 21, 1898). 2

Recreation. (See **Amusements, Public; Parks**).

Referendum. (See under **Direct Legislation**).

Reform, Municipal; Reform Organizations. (See **General Works, City Government, Unclassified; Church and Municipal Conditions**).

Refuse Disposal. (See under **Garbage Disposal**).

"**Reigate [Eng.]**, Bacteriological Sewage Purification at." Surveyor 18:46 (July 13, 1900). 3

Religious Condition of Cities. (See under **Churches and Religious Conditions**).

"**Restaurants for the Laboring Classes.**" Mallock, M. M. National 21:62 (1893). (See also under **Grenoble, France**). 4

Rhode Island.

"Tammany Societies of Rhode Island, The." Jernegan, Marcus W. (Papers from the Historical Seminary of Brown University). Providence, R. I. 50c. 5

"Town Government in Rhode Island." Foster, Wm. E. J. H. Univ. Studies IV:2. 50c. 6

"Water Supply and Sewage Disposal in Rhode Island." (Editorial). Engng. News 38:349 (Nov. 25, 1897). 7

——. "Notes on Water Supply and Sewage Disposal in Massachusetts and Rhode Island." Eng. News 38:349 (Nov. 25, 1897). 8

"**Rhondda [Wales]**, Water Works." Thomas, Octavius. Surveyor 18:303 (Sept. 14, 1900). 9

"**Rhyl [Wales]**, Sewage of." Fuertes, James H. Engng. Rec. 36:400 (Oct. 6, 1897). 10

Richmond, Eng.

"Housing of the Working Classes, with a Description of the Richmond Municipal Cottages." Thompson, W. London, P. S. King & Son, 1899. 4to, 52 pp. Paper, 2s. 6d. 11

——. "Municipal Cottages." Mun. J. & London 8:117 (Jan. 26, 1899).

——. "Municipal Workmen's Dwellings, Richmond, Surrey." J. San. Inst. 21:452 (Oct. 1900). 12

"**Richmond, Ind.**, Garbage Cremation at." Whelan, D. P. City Govt. 7:149 (Dec. 1899). 13

Richmond, Va.

"History of Richmond, Va." Henry, William Wirt. See 1-4c. 14

——. History, Description and Statistics of Richmond and Manchester, Va., in 1880. Census. See 1-7. 15

"Lighting and Power Stations of the Richmond Railway and Electric Co." Elec. World 30:662 (Dec. 4, 1897). 16

"Municipal Condition of Richmond, Va." Newton, Virginius. p. 88, Proc. Third Natl. Conf. for Good City Govt., 1896. See 6-18c. 17

Water Works. "Physical and Bacteriological Characteristics of James River Water at Richmond, Va. with Special Reference to Clarification Methods." Levy, E. C. pp. 81-93 in "Proceedings of the 20th Annual Meeting of the American Water Works Association, Richmand, Va., May 15-18, 1900." 8vo, 216 pp. Cl. $1. 18

——. "The Results of the Meter System in Richmond, Va." Bolling, Charles E. Engng. Rec. 40:12 (June 3, 1899). 19

Riga, Russia, City Plan of. "Der neue Bebauungsplan der Stadt Riga." Stegman, R. Rigasche Ind.-Ztg. p. 135, 1881. 20

Rio de Janeiro.

Prostitution. "A Prostituição na Cidade do Rio de Janeiro, necessidade de medias e regeilamentos contra a propagação da syphilis." de Gães e Siqueira Filha, José. Rio de Janeiro, Typ. da Riforma, 1875. Pamphlet, 108 pp. 21

"Street Railways of Rio Janeiro." St. Ry. J. 16:975 (Oct. 13, 1900). 22

"**Ripley, N. Y.**, The Water Works and Filter Plant of." Wilder, E. A. Engng. News 39:363 (June 9, 1898). 23

Rochester, N. Y.

Almanac. "Rochester Union and Advertiser Year Book." Rochester, Published annually by the Rochester Union and Advertiser. Edition for 1898, 112 pp. 25 cts. 24

Rochester, N. Y.—*Continued.*

"Building Operations, Buffalo, Rochester and Syracuse, Statistics of." B. Labor Stat. New York 1:170 (Dec. 1899). 25

"Electric Lighting System of Rochester, N. Y., The." Muldaur, George B. Elec. Eng. 24:293 (Sept. 30, 1897). 26

History, description and statistics of Rochester, N. Y., in 1880. Census. See 1-7. 27

"Municipal Milk Stations, Rochester." City Govt. 9:127 (Nov. 1900).

"Municipal Reforms in Rochester, N. Y." Alling, Joseph T. Pp. 175-184, "Proc. of the Louisville Conference for Good City Government 1897." See 6-18d. 28

"Parks, The Rochester, N. Y." Park & Cem. 9:190 (Nov. 1899). 29

Sweating in Rochester, N. Y. p. 57 et seq. "Report of the Committee of Manufactures on Sweating." H. R. Report No. 2309, 1893. John De Witt Warner, Chairman. 30

"Water Works of Rochester, N. Y." Kuichling, Emil. Engng. Rec. April 13, 1895, et seq. 31

Rockford, Ill.

Water Supply. "Difficult Engineering Problem Solved in Rockford's New Water Works." Mun. Engng. 16:215 (April, 1899); Engng. News 42:18 (July 13, 1899). 32

——. "A Brief History of the Water Supply of Rockford, Ill." Kimball, W. M. pp. 30-40 in "Proc. of the 20th Annual Meeting of the Am. W. W. Assoc., Richmond, Va., May 15-18, 1900." 8vo, 216 pp. Paper, $1. 33

Roman Cities. "City State of the Greeks and Romans, a Survey introductory to the Study of Ancient History." Fowler, W. Warde. London, Macmillan, 1895. 12mo, 332 pp. $1. 34

Rome.

"Comune, Il, ed il governo a Roma; Studio economico, finanzario." Fiordispini, Biagio. Roma, Ermanno Loescher e C., 1889. 195 pp. L. 3.50. 35

Finance. "Bilancio, Il, del comune di Roma spiegato al popolo, illustrato da alcune considerazioni sull' amministrazione comunale." Canti, S. Roma, Pallota, 1888. 36

——. "Imposta sui fabbricati in Roma, Dell'. Relazione della commissione eletta nell' assemblea dell' 8 luglio, 1892." Marrucci, C. Roma, Forzani e C., 1892. 24 pp. 37

——. "Per Roma; appunti e rilievi sulla finanza municipale." Guastalla, Mich. Roma, Stab. tip. dell' Opinione, 1890. 20 pp. 38

——. "Sempre per Roma, il problema finanziario municipale." Guastalla, Mich. Stab, tip. dell' Opinione, 1890. 20 pp. 39

——. "Situazione finanzaria di Roma, Sulla." Simonetti, Lu. Roma, tip Innocenzo Artero, 1890. 39 pp. 40

"Fire Department of the City of Rome, The." Sci. Am. Sup. 46:19035 (Oct. 1, 1898).

History. Rome and Roman Life in Antiquity. "Rom und römisches Leben im Altertum." Bender, Herm. Tübingen, H. Laupp, 1898. 8vo, 594 pp. 7m. 41

——. City Government under the Roman Empire. "Städteverwaltung im römischen Kaiserreiche." Liebenam, W. Leipzig, Duncker & Humblot, 1900. 8vo, 577 pp. 14m. 42

——. "History of the City of Rome in the Middle Ages." Gregorovius, Ferdinand. (Translated by Annie Hamilton.) New York, Macmillan Co., 1898. 12mo, 5 vols. Cloth, $2 each. 43

——. "Ruins and Excavations of Ancient Rome, The." Lanciani, Rodolfo. Boston, Houghton, Mifflin & Co., 1897. 12mo, 619 pp. Cl. $4. 44

Improvement. "Die Stadterweiterung Roms." Mühlke, C. Wochbl. f. Arch. u. Ing. p. 206, 1882. 45

Markets. "Mercati di Roma, I, ed il bagarinaggio, riforma progettata al municipio." Faina, Annibale. Roma, Domenico Vaselli, 1891. 16 pp. 46

"Pavements, Confined Rivers and the Water Supply of Ancient Rome." Blackford, Francis W. J. Assoc. Engng. Soc. Dec. 1896. 47

Sewerage System. "Il colletore basso delle fogne di Roma a sinistra del Tevere." Giornale del Genio Civile, Anno 28, p. 49 (1890); Jones, Wallace S. See 56-40a. 48

Rome—*Continued.*

"Water Supply of the City of Rome of Sextus Julius Frontinus, Water Commissioner of the City of Rome A. D. 97, The Two Books on the." Herschel, Clemens, Translator. Boston, Estes & Co., 1899. 4to, 296 pp. Cl. $6.50. 49

——. "The Water Supply of Rome." Fuertes, James H. Engng. Rec. 38:337 (Sept. 17, 1898). 50

Rotterdam, Holland.

Garbage Disposal. See 56-40b.

"Sewage Disposal." Reque, Lars S. See 56-40a, 40b. 51

Roubaix, France.

Municipality. "La Municipalité de Roubaix." Chabrouillaud, F. Mouvement Soc. 2:545 (May 1, 1900). 52

Socialism, Municipal. "L'Oeuvre des Municipalités Socialistes, Roubaix." Chabrouillard, F. Le Mouvement Socialiste May 1, 1900. 53

Rouen, France.

Baths, Public, at Rouen and Paris. "Les Bains-Douches à bon marché à Rouen et à Paris." Sarrey, Paul. Génie Civil May 6, 1899. 54

History. "Mediæval Towns: The Story of Rouen." Cook, F. A. New York, Macmillan Co., 1899. 16mo, 409 pp. Cl. $2. 55

Lighting. "The Cost of Various Illuminants at Rouen in France." Piequet, O. Prog. Age 15:497 (Nov. 1, 1897). 56

Roumania, Local and Municipal Government in. Demombynes Vol. I, pp. 678-695. See 2-11. 57

Rural Population, Decrease of. (See under **Population**).

Russia.

Government, General References.

Local and Municipal Government in Finland. Demombynes Vol. I, pp. 651-657. See 2-11. 58

——. "Die Selbstverwaltung d. Kommunen." Mechelin, L. IV. Abs. pp. 335-339, Vol, IV, Marquardsen. See 2-9. 59

Local and Municipal Government in Russia. Demombynes Vol. I, pp. 547-617. See 2-11. 60

——. "Die russische Städteordnung vom 16 Juni, 1870." Schwanebach, P. St. Petersburg, Kaiserliche Hofbuchhandlung H. Schmitzdorff, 1874. 8vo, 35 pp. 1 m. 60 pf. 61

——. "Die Selbstverwaltung." Engelmann, J. VI. Abschnitt, pp. 102-201 Vol. IV, Marquardsen. See 2-9. 62

——. "L'Empire des Tsars et les Russes; le self-government en Russie." Leroy-Beaulieu, Paul. R. Mondes. Nov. 15, 1876, July 15, 1878. 63

——. "Local Government and Taxation in Russia." Dilke, Ashton Wentworth. p. 309 "Local Government and Taxation," J. W. Probyn, editor. London & New York, Cassell, 1875. 5s. 64

"Municipal Reform in Russia." Schuyler, E. Nation 11:364 (1870); Mun. J. 9:146 (Feb. 23, 1900). 65

"Charity in Russia, The Organization of." Georgievsky, H. p. 244 "International Congress." vol. III, 1893. See 43-99. 66

Finance Statistics. "Zur Finanzstatistik der Städte Russlands." Sodoffsky, G. Zeit. f. d. Ges. Staats. 55:510 (Heft 3, 1899). 67

——. "Die Besteuerung der Städtischen Liegenschaften Russlands zu Communalen Zwecken I.") Sodoffsky, Gustav. Zeit. f. Volks. Soc. u. Verwaltung 8:602 (Heft. 6, 1899). 68

"Lighting Systems in Russia." Luloslawski, M. Elec. World 30:36 (July 10, 1897); Am. Gas. Lgt. J. 67:90 (July 19, 1897). 69

"Sanitation in Russia." Wilke, D. Am. Arch. 64:59 (May 20, 1899), 64:67 (May 27, 1899). 70

Street Railways. "Possibilities for Electric Tramway Construction in Russia." Ry. World 7:15 (Jan. 1898). 71

"**Rutland, Vermont.**" Dorr, Julia C. R. New Eng. M. 18:201 (April, 1898). 72

"History of Rutland, Vt." Mead, Edwin D. See 1-4a. 73

Sacramento, Cal. "A Municipal Employment Bureau." Cal. Mun. 2:150 (June, 1900). 74

"**Saginaw, Mich.**, City Government in." Webber, Wm. L. Ann Arbor, Studies in Finance and History, Michigan Univ. Article in Vol. I, No. 6, (Dec. 1895). 25 cts. 75

"**St. Augustine, Fla.**, History of." Fairbanks, George R. See 1-4c. 76

St. Gall, Switzerland.

Sewage and Garbage Disposal. See 56-40b.

"Unemployment, Insurance against, in St. Gall and Berne." L'Avenir Social (Bruxelles) 1:189-194 (1896); Curti, Theodor. Ar. Soz. Gesetz. Stat. 10:157 (1897); Garrelts, Fr. Goettingen, L. Horstmann, pub. (1896), two pages with one table, one mark; Hofmann, E. Ar. Soz. Gesetz. Stat. 13:85 (1 Heft, 1898); Jay, Raoula. R. Pol. e. Par. 1:267, 6:140, 8:397, 11:397 (1894), (1895), (1896), (1897); Stolz, Ferd. Schweiz. Bl. 2:12 (1894); Zuppinger, C. Pub. at Berne, 1895. 77

——. "Die Auflösung der Arbeitslosen-Kasse in St. Gallen." Soziale Praxis Nov. 19, 1896, pp. 169-172; Zeit. Staatswissen 53:692-696 (1897). 78

"**St. Helens [Eng.]**, Subway." Surveyor 17:67 (Jan. 26, 1900).

St. Louis.

Government, General References.

"City Government of St. Louis." Snow, Marshall. J. H. Univ. Studies V:4 (1887); Dewart, Frederick W. Pp. 218-232, Proc. of the Louisville Conference for Good City Govt., 1897, see 6-18d; Shaw, Albert. Cent. 52:253 (1896); Verdier, A. R. Proc. Indianapolis Conf. p. 270, 1898, see 6-18e. 79

"Growth of St. Louis." Ralph Julian. Harper 85:917 (1892). 80

"Higher Life of St. Louis." Snyder, John. Outlook 54:372 (1896). 81

History, description and statistics of St. Louis, Mo., in 1880. Census. See 1-7. 82

"The Central Continental Metropolis." Logan, C. T. Frank Leslie's March, 1897. 83

"Art, Public, in St. Louis." Mauran, John Lawrence. Mun. Aff. 3:702 (Dec. 1899). 84

"Conduit Construction in St. Louis." Cosby, Frank Clark. Elec. World 30:242 (Aug. 28, 1897), 30:267 (Sept. 4, 1897). 85

"Municipal Engineering in St. Louis." Moore, Robert. Engng. News Jan. 23, 1892, p. 76, Engng. Rec. Jan. 23, 1892, p. 127. 86

Parks. "Notes from Tower Grove Park." Seavey, Fanny Capley. Park and Cem. 7:58 (May, 1897). 87

"Pavements of St. Louis." Engng. Rec. Feb. 7, 1891, p. 159. 88

"Plumbing Inspection in St. Louis." Engng. Rec. April 4, 1891, p. 298.

"Sanitary Survey of St. Louis." Homan, George (Editor.) Concord, N. H. Reprinted from transactions of the American Public Health Assoc., 1885. 77 pp. 89

"Schools of St. Louis, Public." Rice, J. M. Forum 14:429 (1892). 90

"Sewerage System of St. Louis." Moore, Robert. J. Assoc. Engng. Soc. 4:139 (1885). 91

"Street Railways of St. Louis." Anon. St. Ry. Jour. Feb. 1890, p. 56; Engng. M. 8:449 (1894). 92

"Water Works, The St. Louis." Discussed in the following papers: I, Historical Review, by M. L. Holman; II, Points of Interest in the Design and Construction, by S. Bent Russell; III, New Machinery, by John A. Laird; IV, Quality of the Supply, by Robert E. McMath; and V, Filtration, by Robert Moore. J. Assoc. Engin. Soc. Jan. 1895; Fire and W. 23:50 (Feb. 12, 1898); 23:58 (Feb. 19, 1898); Engng. Rec. 38:111 (July 9, 1898); Mun. Engin. 13:78 (Aug. 1897). 93

Saint Nazaire, France, Improvement. "Agrandissement de la Ville de Saint Nazaire." Nouv. Annales de la Const. p, 1, 1865. 94

St. Pancras. (See under **London**).

St. Paul.

Government, General References.

"Government of St. Paul." Gonden, H. J. and Irwin Beaumont. City Govt. 1:13 (1896); Lightner, W. H. p. 105, Proc. Second Natl. Conf. for Good City Govt., 1895, see 6-18b. Wheelock, Webster. Mun. Aff. 3:491 (Sept. 1899). 95

History, description and statistics of St. Paul, Minn., in 1880. Census. See 1-7. 96

"St. Paul." Howard, William W. Hrprs. Wkly. 34:149 (1890); in article, "Capitals of the Northwest." Ralph, Julian. Hrprs. 84:576 (1892). 97

"Assuring Real Estate, The St. Paul Method of." Clow, F. R. J. Pol. Econ. Dec. 1896. 98

"Baths, The St. Paul Public." Pomeroy, Eltweed. Outlook 66:126 (Sept. 8, 1900). 99

——. "Municipal Lighting for St. Paul." Mun. J. & E. 9:158 (Dec. 1900).

"Park Systems of Minneapolis and St. Paul, The." Robbins, Mary C. Garden & F. 10:162 (April 28, 1897); Park & Cem. 10:106 (July, 1900). 100

"Schools of St. Paul, Public." Rice, J. M. Forum 15:200 (1893). 1

"Water Works, St. Paul." Caulfield, John. Fire & W. May 29, 1897. 2

St. Petersburg, Russia.

"Electric Railway in St. Petersburg." (Editorial.) St. Ry. R. 7:587 (Sept. 15, 1897). 3

History. A Critical Review of Three Periods of Municipal Government in St. Petersburg. Viestnik Europy p. 852, Aug. 1898. 4

"Sewage Disposal, St. Petersburg." Jonas, Charles. See 56-40a. 5

Salem, Mass.

"History of Salem." Latimer, George D. See 1-4a. 6

"Salem: Historic and Picturesque." Benjamin, Anna N. Outlook 57:591 (Nov. 6, 1897). 7

Salford, Eng.

"Housing of the Working Classes at Salford, The." Tattersall, C. H. San. Rec. 26:88 (Aug. 3, 1900). 8

"Libraries Movement, Salford and the Inauguration of the Public Free." Mullen, Ben H. Salford, Borough Council, 1900. 8vo, 52 pp. 9

Street Railways. "Corporation Electric Tramways, Salford, Eng." Ty. & Ry. W. 9:77 (Feb. 8, 1900). 10

Saloon Problem in Cities. (See under **Liquor Problem in Cities**).

Salt Lake City, Utah.

History, description and statistics of Salt Lake City, Utah, in 1880. Census. See 1-7. 11

"Municipal Engineering Work at Salt Lake City, Notes on." Engng. News 37:284 (May 6, 1897). 12

Sewerage. "Outfall Sewer and Sewage Farms at Salt Lake City, Utah." Engng. News 37:166 (March 18, 1897).

Salvation Army Work in Cities. (See under **Church and Municipal Conditions**, also under **London, New York**).

San Antonio, Texas.

"The Founding of the First Texas Municipality." Cox, I. J. Texas Hist. Ass'n Quar. Jan. 1899. 13

San Francisco.

Government, General References.

"City by the Golden Gate, The." Fitch, Geo. Hamlin. Chaut. Sept. 1896. 14

History, Description and Statistics of San Francisco, Cal., in 1880. Census. See 1-7. 15

"Ideas of City Government at San Francisco." A. Z. Engng. News 38:314 (Nov. 11, 1897). 16

San Francisco—*Continued.*

"Municipal Affairs in San Francisco." Freud, J. Richard. Pp. 249-255, Proc. of of the Louisville Conf. for Good City Govt., 1897, see 6-18d; Kerr, James W. Mchts. Assoc. Rev. p. 3 (July, 1897); Knapp, A. Arena 12:241 (1895); Law, Herbert E. Mchts. Assoc. Rev. p. 2 (Aug. 1897); Milliken, Isaac T. p. 449, Proc. Second. Natl. Conf. for Good City Govt., 1895, see 6-18b; Shinn, Charles H. Outlook 54:53 (1896); Stallard, J. H. Overland 29:44, 135, 278, 386 (Jan., Feb., March and April, 1897), Reprinted by Overland Monthly Pub. Co., San Francisco. Paper, 40 pp. 50 cts. 17

"Needed Enlightenment as to Public Affairs in San Francisco." Mun. Engng. 13:197 (Oct. 1897).

"San Francisco." Ralph, Julian. Hrprs. Wkly. 36:130, 39:231 (1892, 1895). 18

"San Francisco and New York Governments." Mun. Engng. 17:28 (July, 1899). 19

"San Francisco's Struggle for Good Government." Blackmar, Frank W. Forum 26:567 (Jan. 1899). 20

"Saving the Cities." City & State 8:342 (May 31, 1900).

Art. "Market Street, A Plan to Beautify." Cahill, B. J. S. Cal. Arch. Oct. 1899. 21

"Charities of San Francisco." Weitzel, S. W. Lend a H. 3:617 (1888). 22

——. "Almshouses at San Francisco." Weaver, [Mrs.] E. A. Lend a H. 9:28 (1892). 23

——. "Directory and Digest of Laws relating to Almshouses." Jenness, C. K. San Francisco, Methodist Book Depository Pub., 1895. 93 pp. 50 cts. 24

Charter. "A New Charter Wanted." Kelly, Daniel V. Mchts. Assoc. Rev. p. 3 (June, 1897). 25

——. "A Charter for the People." Stallard, J. H. Star Vol. 27, No. 16, p. 6, No. 17, p. 6 (Oct. 16, 23, 1897), Vol. 28, No. 18, p. 6 (Oct. 30, 1897), Star, Supplement Nov. 6, 1897. 26

——. "An Iron-Clad Charter and the Beneficial Effects Thereof." McCardy, J. J. City Govt. 3:130 (Oct. 1897). 27

——. "Making a City Charter: Charter Convention of One Hundred." Mchts. Assoc. R., Vol. 2, No. 3, p. 3 (Nov. 1897). 28

——. "Municipal Conditions and the New Charter." Phelan, J. D. Overland 28:104 (1896), Star Vol. 27, No. 25, p. 9 (Dec. 18, 1897). 29

——. "Referendum in San Francisco's New Charter." Lit. Dig. 16:726 (June 18, 1898). 30

——. "San Francisco's New Charter." Lewis, Austin. Arena 22:368 (Sept. 1899); Shaw, Albert. Am. M. R. of Rs. 19:563 (May, 1899); Woodruff, Clinton Rogers. Ann. Am. Acad. Pol. Sci. 13:413 (May, 1899). 31

——. "Synopsis of the New Charter." Freud, J. Richard. Mchts. Assoc. R. Vol. 2, No. 21, p. 1 (May, 1898). 32

——. "The Contest for Charter Freeholders." Center, Geo. L. Mchts. Assoc. Rev. Vol. 2, No. 16, p. 4 (Dec. 1897); Vol. 2, No. 17, p. 2 (Jan. 1898). 33

——. "The New City Charter." Mchts. Assoc. Rev. Vol. 2, No. 20, p. 1 (April, 1898); Engng. News 39:335 (May 26, 1898), (Editorial) p. 337. 34

"Civil Service." Star Vol. 27, No. 23, p. 6 (Dec. 4, 1897); Good Govt. 15:119 (1896); Stallard, J. H. Star. Vol. 27, No. 24, p. 7 (Dec. 11, 1897); Proc. Natl. Civil Service Reform League, 1899, p. 69; Mchts. Assoc. Rev. Vol. 4, No. 48, p. 3 (Aug. 1900). 35

"Election Machinery of San Francisco." Beatty, W. A. Overland n. s. 21:27 (1893). 36

Finance. "Merchants' Association Memorial upon the Tax Levy." Mchts. Assoc. Rev. p. 1 (Aug. 1897). 37

"Garbage, How San Francisco Disposes of its." Sci. Am. 79:260 (Oct. 22, 1898); Ellert, L. R. Mchts. Assoc. Rev. p. 3 (Aug. 1897), City Govt. 7:17 (July, 1899); Mills, F. J. Engng. News 43:318 (May 17, 1900; anon. Engng. News 43:325. 38

History. "Vigilance Committee, San Francisco." Cary, Thomas G. Atlan. 40:702 (1877), Internat. R. 11:78 (1881). 39

——. "Early Days in San Francisco: A Near View of Vigilante Times." Knight, Maria. Overland 30:252 (Sept. 1897), 30:313 (Oct. 1897). 40

——. "Establishment of City Government in San Francisco." Moses, B. J. H. Univ. Studies VII:2 and 3 (1889). 41

——. "Fort Gunnybags." Overland 31:73 (Jan, 1898). 42

San Francisco—*Continued.*

"Lighting of San Francisco." Hasson, W. F. C. Overland 23:385 (1894); Mchts. Assoc. Rev. Vol. 2, No. 29, p. 4 (April, 1898); Engng. News 41:331 (May 25, 1899). 43

"Markets of San Francisco." Craft, Mabel C. Chaut. Dec. 1896. 44

"Municipal Ownership and Management of Public Utilities in San Francisco." Doyle, John T. Mchts. Assoc. R. Vol. 5, No. 51, p. 3 (Nov. 1900). 45

——. "Public Utilities in San Francisco." Phelan, James D. Mchts. Assoc. Rev. p. 1 (July, 1897). 46

——. "Public Utilities in San Francisco under the New Charter." Reed, Charles Wesley. Cal. Mun. 3:43 (Sept. 1900). 47

——. "San Francisco Follies." Symmes, Frank E. Public Policy 3:312 (Nov. 17, 1900). 48

Reform Organizations. "Civic Service of the Merchants' Association of San Francisco." Freud, J. Richard. Mun. Affairs 1:706 (Dec. 1897); Bibo, Nathan. Mchts. Assoc. Rev. p. 2, July, 1897, p. 4, Aug. 1897. 49

Sanitation. "Municipal Boards of Health and Quarantine Regulations." Lewis, Austin. Am. Law R. 34:722 (Sept., Oct. 1900). 50

"Settlement, South Park." McLean, Fannie. Commons June, 1897; anon. Mchts. Assoc. Rev. Feb. 1900. 51

"Sewage of San Francisco." Stallard, J. H. San Francisco Polyclinic, Pamphlet, 30 pp. 1892. 52

"Streets, How San Francisco's are Cleaned." King, L. M. Mchts. Assoc. Rev. Vol. 2, No. 16, p. 5 (Dec. 1897); Engng. Rec. 39:522 (May 6, 1899) 53

Street Railways. "Four-Cent Fare Struggle in San Francisco." St. Ry. J. 16:82, 492 (Jan. 20, May 12, 1900). 54

"Water Supply of San Francisco." O'Connell, Daniel. Hrprs. Wkly. 38:990 (1894); Fire & W. 23:83 (March 12, 1898); Baldwin, A. S. Mchts. Assoc. Rev. 4:2 (April, 1900), Public Policy 2:301 (May 12, 1900), City Govt. 8:146 (June, 1900), Mun. Aff. 4:317 (June, 1900). 55

Sanitation, Public Health, etc. (See also **Garbage Disposal, Housing, Population, Sewage Disposal, Water Supplies.**)

See also Amsterdam, Baltimore, Berlin, Birmingham, Bordeaux, Boston, Brussels, Cape Town, Chicago, Cleveland, Dundee, England, France, Geneva, Glasgow, Great Britain under U. K., Hamburg, Hammersmith (Eng.), Havana, Hong Kong, India, Italy, London, Los Angeles (Cal.), Manila, Marseilles, Massachusetts, Mexico, Michigan, Moscow, New Orleans, New York, Paris, Philadelphia, Russia, St. Louis, San Francisco, Santiago, Spain, Switzerland, Topeka, Toronto, United Kingdom, United States, Washington.

"Air, Water and Food from a Sanitary Standpoint." Richards, Ellen H., and Woodman, Alpheus G. New York, Wiley & Sons, 1st ed., 1900. 8vo, 230 pp. Cl. $2. 56

Bacteriology in its Relation to Public Health. Novy, F. G. Pp. 17-24 in Proc. of the 4th General Conf. of Health Officers in Michigan, 1899; McClintock, Charles T. Pp. 24-28 same; Abbott, A. C. Prog. Eng. Club 17:47 (May, 1900). 57

——. Boards of Health. Bryce, P. H. Mun. World 8:6, 22 (Jan., Feb. 1898), 8:36 (March, 1898); Probst, C. O. City Govt. 6:31 (Feb. 1899); anon. Sanitarian 39:509 (Dec. 1897). 58

"Building Cities for Health." Swift, Morrison I. Unitarian Review 34:270 (1890). 59

"Building Construction and Public Health." Fyfe, Peter. Arch. Nov. 5, 1897, San. Rec. 20:640 (Dec. 10, 1897); anon. San. Rec. 20:629 (Dec. 10, 1897) 60

City Government and Sanitation. "Good City Government from the Physician's and Sanitarian's Standpoint." Billings, John S. p. 492, Proc. Second. Natl. Conf. for Good City Govt., 1896, See 6-18c. 61

——. "Municipal Government and Public Health." Billings, John S. Ann. Am. Acad. Pol. Sci. Vol. I, Supplement. 23 pp. 25 cts. 62

"Civic Helps for Civic Life." Dana, M. M. G. Soc. Econ. 8:226 (1895). 63

"Cleansing of Cities and Public Health." Waring, G. E. Engng. M. 8:805 (1895). 64

"Contagious Diseases." White, James H. Mun. Aff. 2:286 (June, 1898). 65

"Cost of Living as Modified by Sanitary Science, The." Richards, Ellen H. New York, Wiley & Sons, 1899. 12mo, 125 pp. Cl. $1. 66

Sanitation, Public Health—*Continued.*

"Curative and Preventive Sanitation." Sykes, John F. J. Mun. J. 9:609 (Aug. 3, 1900). 67

Engineering, Sanitary. "The Elements of Sanitary Engineering." Merriman, Mansfield. New York, John Wiley & Sons, 2d ed., 1899. 8vo, 222 pp. $2. 68

——. "Progress of Sanitary Engineering." Noble, Andrew. Sanitarian Dec. 1896. 69

——. "Sanitary Engineering." Gerhard, Wm. Paul. New York, The Author, 1899. 8vo. 132 pp. Cl. $1.25. 70

——. "Sanitary Engineering." Latham, Baldwin. London, Spon, 1878. 8vo, 559 pp., il. pl. 30s. 71

——. "Sanitary Engineering. A Practical Treatise on the Collection, Removal and Final Disposal of Sewage, etc." Moore, E. C. S. New York, Longmans, G. & Co., 1899. 8vo, 648 pp. Ill. Cl. $10. 72

——. "Sanitary Engineering." Twenty-third Annual Report of the State Board of Health of Massachusetts. (Water Supply. Sewage Disposal. Pollution of Streams, Sewage Purification, etc.) Abbott, Samuel. (Secretary.) Boston, 1895. 73

——. "The Municipal and Sanitary Engineer's Handbook." Boulnois, H. P. (3d ed.) New York. Spon & Chamberlain, 1898. 8vo, 474 pp. Cl. $6. 74

"European Sanitation." Ellery, T. George. Mun. J. & London 8:1359 (Dec. 22, 1899). 75

——. "Public Health Matters in Continental Europe." Pp. 34-37 in "Municipal Extension and Other Essays." Ellery, T. George. Adelaide, W. K. Thomas & Co., 1899. 12mo, 51 pp. Pamphlet. 76

"Expropriation for Sanitary Purposes." Chap. III, pp. 53-68, Eighth Special Report of the Commissioner of Labor on "The Housing of the Working People," by E. R. L. Gould. 77

Garbage and Sanitation. "Sanitary Care and Utilization of Refuse of Cities." Storer, J. J. J. Frankl. Inst. 97:48 (1874). 78

"Graveyards as a Menace to the Commonweal." Windmüller, Louis. No. Am. 167:211 (Aug. 1898). (See also under **Burial.**) 79

"Health of Nations, The." Richardson, Benjamin W. London, Longmans, 1887. 2 vols. 8vo. 28s. 80

"House-Drainage and Sanitary Plumbing." Gerhard, William Paul. New York, D. Van Nostrand Co., 7th ed., 1898. 16mo, 231 pp. 50 cts. 81

——. "House Drainage and Sanitary Fitments." Jensen, Gerard J. E. London, Sanitary Publishing Co., Ltd., 1900. 8vo, 257 pp. 5s. 82

——. "Principes d'Assainissement des Habitations des villes et de la banlieu." Pignant, P. Dijon, Darantière, 1889. 30 fr. 83

"Housing of the Poor, The Sanitary Consideration of the." Newell, Wm. H. Sanitary Monitor Jan. 1886. (See also under **Housing of the Poor.**) 84

——. "Dwellings for the Poor and Sanitary Legislation." Child, G. W. Contemp. 32:297 (1878). 85

——. "Sanitary Supervision of Dwellings." Angell, Lewis. Van Nos. Eng. M. 25:388 (1881); Moore, M. I. Char. R. 4:434 (1895). 86

——. "Tenement Sanitation." Wingate, C. F. Lend a H. 2:82 (1887). 87

Hygiene. (See under Public Health below.)

"Hygeia, A City of Health." Richardson, B. W. London and New York, Macmillan, 1876. 47 pp. 25 cts. 88

"Inspection, Revelations of Sanitary." Robins, E. C. Van Nos. Eng. M. 25:505 (1881). 89

——. "The Importance of the Sanitary Inspector." Pp. 26-30 in "Municipal Extension and Other Essays." Ellery, T. George. Adelaide, W. K. Thomas & Co., 1899. 12mo, 51 pp. Pamphlet. 90

"International Sanitary Conferences." Smith, S. Am. J. Soc. Sci. 32:92 (1894). 91

——. Transactions of VI Congress upon Hygiene und Demographie at Vienna, 1887. "Verhandlungen des VI Congresses für Hygiene und Demographie zu Wien 1887." Deutsche Viert. f. Oeff. Gesundheitspfl. p. 114, 1887. 92

"Laboratory in Municipal Public Health Work, The Practical Place of the." Mackenzie, J. J. p. 58 Assoc. Ex. Hlth. Officers of Ont. XIth Meeting, 1896. 93

"Law, Sanitary." Chap. II, pp. 21-52, Eighth Special Report of the Commissioner of Labor on "The Housing of the Working People," by E. R. L. Gould. 94

——. "Lectures on Sanitary Law." Blyth, A. W. New York, Macmillan, 1893. 287 pp. $2.50. 95

Sanitation, Public Health—*Continued.*

——. "Legislation sur les logements insalubres, traité pratique." Jourdan, Gustav. Paris, Berger, L. et Cie., 4th ed., 1889. 6 fr. 96

——. "Model Sanitary Ordinances." Gerhard, William Paul. Engng. News Sept. 26, 1885. 97

——. "Sanitary Legislation." Lee, B. Penn. Mo. 9:417 (1878). 98

"Lectures, Reports, Letters and Papers on Sanitary Questions." Rawlinson, R. London, P. S. King, 1880. 8vo. 3s. 6d. 99

"Life Insurance and Public Health Problems." Hoffman, Frederick L. Sanitarian 39:38 (July, 1897). 100

"Mayors and City Councilmen to Sanitary Problems, The Relation of." Potter, Alexander. City Govt. 3:125 (Oct. 1897). 1

"Modern Sanitary Science, A City of Health." Richardson, B. W. Van Nos. Eng. M. 14:31 (1876). 2

"Nationalization of Health." Ellis, Havelock. London, Unwin, 1892. 244 pp. 3s. 6d. 3

"Nuisances, Problem of Municipal." Tracy, R. S. Pop. Sci. Mo. 18:585 (1881). 4

——. "Summary Condemnation of Nuisances by Municipal Corporations." Uhle, John B. Am. Law R. n. s. 30:157 (1891). 5

"Parks to Public Health, The Relation of Public." Meehan's Monthly 9:112 (July, 1899). 6

"Pavements on Public Health, What Influence have." Campbell, A. W. Proc. p. 78 Assoc. Ex. Hlth. Officers of Ont., XIIIth Meeting, 1898. 7

Plumbing. "Evolution of Sanitation in Relation to the Plumber." Glaister, John. Plumber and Decorator (London). March 1, 1897. 8

"Police Power and Public Health." Black, H. C. Am. Law R. 25:170 (1891). 9

Poor, Sanitation and the. Marryat, R. 19th Cent. 15:340 (1884); Welch, William H. Char. R. 2:203 (1893). 10

Powers as to Public Health. "De la Détermination des Pouvoirs Publics en Matière d'Hygiène." R. Municipale 3:2028 (April 7, 1900). 11

——. "Des Pouvoirs de L'Autorité municipale en Matière d'Hygiène et de salubrité." Jonary, Léon. Paris, Giard et Brière, 1899. 12

"Profitable Sanitation." Poore, G. V. San. Rec. 26:119 (Aug. 10, 1900), Mun. J. 9:661 (Aug. 24, 1900). 13

Public Health, Hygiene. "Etudes d'Hygiene Publique." Jourdan, Gustav. Paris, Berger-Levrault, 1894. 4th ed. 8vo. 4 fr. 14

——. "Etude sur l'assainissement urbaine, hygiène et salubrité publique." Tackels, C. J. Bruxelles, Office de Publicité, 1890. 4 fr. 15

——. "Hygiène Générale des Villes." Lanck, L. Gaz. des Arch. et du Bât. pp. 165, 172, 209, 221, 229, 237, 1878. 16

——. "Hygiene and Public Health." Whitelegge, B. Arthur. London, Cassell & Co., 1890. 12mo, 531 pp. 7s. 6d. 17

——. "Manual of Public Health." Blyth, A. W. London, Macmillan, 1890. 8vo. 17s. 18

——. Municipal Hygiene. "L'Hygiène Municipale." Strauss, Paul. R. Municipale 3:1833 (Jan. 13, 1900). 19

——. "Public Health, The." Harris, Elisha. No. Am. 127:444 (1878); anon. Mun. W. 7:105 (May, 1897). 20

——. "Public Health and Demography, Handbook of." Willoughby, Edward F. London, Macmillan, 1893. 509 pp. 4s. 6d. 21

——. "Public Health Problems." Sykes, J. F. J. New York, Scribner, 1892. 370 pp. $1.25. (Contemporary Science Series No. 22). 22

——. "Social Problems, Public Health and." Russell, James B. San. J. No. 49, p. 1 (March, 1898). 23

——. "Treatise on Hygiene and Public Health." Buck, Albert H. New York, W. Wood & Co., 1890. 2 vols., 792 and 657 pp. $10. 24

——. "Treatise on Hygiene and Public Health." Stevenson, Thomas, and Shirley Murphy. Churchill, London, 1892-94. 3 vols., 8vo. 80s. 25

——. "Treatise on Public Health and its application in different European countries." (England, France, Belgium, Germany, Austria, Sweden and Finland). Palmberg, Albert, and Albert Newsholme. New York, Macmillan & Co., 1893. 8vo, 539 pp. $5. 26

Sanitation, Public Health—*Continued.*

"Quarantine and Port Sanitation." Bell, A. N. Sanitation 38:481 (June, 1897). 27

"Rural Districts, Sanitary Defects in." Smith, G. H. Sanitarian 42:36 (Jan. 1899). 28

Sanitary Care of Cities. Gordon, J. Sci. Am. Supp. Nov. 19, 1887; Leas, C. A. J. Frankl. Inst 97:206 (1873). 29

"Sanitary Conditions of Cities." Young, S. G. Am. Arch. 22:218 (1887). 30

"Sanitary Science, Notes on Practical." Maxwell, William H. San. Rec. 19:364, 475, 530, 587; 20:6, 61, 117, 116 (1897). 31

——. "A Year's Progress in Sanitary Science." Priestly, Joseph. San. Rec. 21:394 (April 15, 1898), 21:450 (April 29, 1898). 32

"Sanitation, A Half Century of." Gerhard, William Paul. Am. Arch. 63:61, 67, 75 (Feb. March, 1899). Pp. 83-118 in "Pro. Brooklyn Engineers' Club for 1899." 8vo, 233 pp. Paper, $2. 33

——. "Some Phases of Public Sanitation." Gardner, E. C. Am. Arch 69:27 (July 28, 1900). 34

School Houses, Sanitation of. (See under **Schools**).

"Sewage and Water Supply to Public Health, The Relation of." Riggs, H. F. Pp. 36-49 in "Pro. of the 4th Gen. Conf. of Health Officers in Michigan, 1899." 35

"Shelters and Sanitation." Waldo, F. J. London 6:589 (July 8, 1897). 36

——. "Shelters for the Homeless, Sanitary Supervision of." Waldo, F. J. San. Rec. Feb. 1897. 37

Small Towns. "Abfuhr der Abfallstoffe, u. s. w. in mittler und kleineren Städten." Gesund. Ing. 20:231 (July 31, 1897). 38

——. "Village Sanitation." Bashore, Harvey B. Sanitarian 39:315 (Oct. 1897). 39

"Soil Conditions: Their Practical Relations to Infectious Diseases." San. Rec. 21:395 (April 15, 1898). 40

——. "Superficial Soils of Cities are Unsanitary, Why the." San. Rec. 21:141 (Feb. 11, 1898). 41

"Teaching of Sanitary Science, A Plea for the." Fall, Delos. Education, Jan. 1897. 42

"Theory of Sanitation, The." San. Rec. 21:399 (April 15, 1898). 43

"Town Dweller, The: His Needs and His Wants." Fothergill, John M. New York, Appleton, 1889. 118 pp. $1. 44

Tuberculosis. "The Duty of Municipal Health Officers and Boards of Health in dealing with Tuberculosis." Mitchell, F. H. p. 12 Assoc. Ex. Hlth. Officers of Ont., XIVth Meeting, 1899. 45

"Typhoid Fever. The Monetary Loss to Cities from." Turnbull, Thomas. "Thirteenth Annual Report of the State Board of Health * * * of Pennsylvania." P. 305. Harrisburg, 1898. 46

"Unhealthfulness of Cities, its Cause and Cure." Peek, Francis, and Edwin T. Hall. Contemp. 61:221 (1892). 47

"Vagaries of Sanitary Science." Dibble, F. L. Philadelphia, Lippincotts, 1893. 462 pp. $2. 48

"Waste of Power in Sanitary Improvement." Conder, F. R. Fraser 93:506 (1876). 49

"Water Analysis, The Interpretation of Sanitary." Davis, Floyd. Engng. M. 15:68 (April, 1898), Mun. Engng. 14:336 (June, 1898). 50

Women. "What Women have done for the Public Health." Thomson, Edith Parker. Forum 24:46 (Sept. 1897). 51

"Workingmen and Sanitation." Wingate, Charles F. Am. Fed. 4:6 (March, 1897). 52

——. "Working Conditions." White, Henry. Mun. Aff. 2:237 (June, 1898). 53

Santa Cruz, Cal.

"What a City has Done and is Doing." Lamb, W. H. Cal. Mun. 1:131 (Dec. 1899). 54

Santiago, Cuba.

"Government of Santiago, The." Kennan, George. Outlook 62:109 (May 13, 1899). 55

Sanitation. Cleaning of Santiago. Barbour, George M. Sanitarian 43:8 (July, 1899); Kennan, George. Outlook 61:871 (April 15, 1899); Engng. Rec. 40:689 (Dec. 23, 1899); Wood, Leonard. Scribners 25:515 (May, 1899). 56

"**Saratoga, N. Y., History of.**" Walworth, Ellen H. See 1-4b. 57

Savannah, Ga.

"History of Savannah, Ga." Stóval, Pleasant A. See 1-4c. 58

History, Description and Statistics of Savannah, Ga., in 1880. Census. See 1-7. 59

Savings Banks, Municipal. (Caisses d'Epargne, Sparkassen.)

See also France, Leipsic, Switzerland.

"Administration des Caisses d'Epargne." (Historique, Organisation, Legislation). Wallet, Paul. Paris, P. Dupont, 1886. 6 fr. 60

Communal Finances and Savings Banks. "Sparkassen u. Gemeindefinanzen, deren Gestaltung u. Einrichtung." Kuntze, Osc. Berlin, Heymann, 1882. 8vo, 176 pp. 2m. 50 pf. 61

"Das Sparkassenwesen in seiner Bedeutung für die Arbeiterwohlfahrt." (Schriften d. Zentralstellen für Arbeiterwohlfahrtseinrichtung, No. 6.) Berlin, 1895. 62

"Die Kontrole u. die sonstigen Hilfseinrichtung bei Sparkassen und Vorschussvereinen." Bahrt, A. F. Leipzig, Gloeckner, 1882. 8vo, 225 pp. 5m. 63

"Fortschritte in Sparkassenwesen." Böhmert, Vict. Berlin, Simion, 1882. 8vo, 55 pp. 1m. 64

"Guides des caisses d'épargne et de leur déposants." Armand, Léopold. Paris, Lahme, 2e édit., 1894. 3 fr. 65

"Les Caisses d'Epargne et de Prévoyance depuis leur origine jusqu'à nos jours." (Première partie; Histoire, Régime actuel, Projets de réforme, Opinion publique, Appréciations de différentes caisses d'épargne françaises, Aperçu de l'organisation des caisses étrangères. Deuxième partie: Legislations française et étrangères). Laurent, H. Pithiviers, Imprimerie des Caisses d'Epargnes, 1892. 2 vols. 8vo, 429 and 551 pp. 66

"Mécanisme, statuts et réglements des Institutions de Prévoyance, l'Economiste pratique." Cacheux, Emile. Paris, Baudry, 1884. 40 fr. 67

Postal Savings Banks. "Postsparkassen, 1. Tl. Geschichte u. Hauptresultate d. besteh. Postsparkassen." Grimm, Karl. Stuttgart, Strecker u. Moser, 1896. 8vo, 47 pp. 50 pf. 68

School Savings Banks. (See under **Schools**).

Schaffhausen, Switzerland, Electric Plant. "Das Elektrizitätswerk der Stadt Schaffhausen." Täuber, K. P. Schweiz. Bauz. June 4, 11, 18, 1898. 69

"**Schenectady, N. Y.,** History of." Landon, Judson S. See 1-4b. 70

School Systems of Cities.

See also Baltimore, Berlin, Boston, Buffalo, Chicago, Cincinnati, England under United Kingdom, France, Germany, Glasgow, Great Britain under United Kingdom, Indianapolis, Italy, London, Magdeburg, Manchester (Eng.), Milwaukee, Minneapolis, New York, Paris, Philadelphia, Providence, Prussia, St. Louis, St. Paul, United Kingdom, United States.

"Administration of City Schools." Marble, A. P. Educa. R. 8:154 (1894); Young, James T. Ann. Am. Acad. Pol. Sci. 15:171 (March, 1900). 71

"Architecture, Schools and School House." Gardner, E. C. Engin. M. 10:478 (1895). 72

"Art in the Public Schools." Whitman, Sarah W. Atlan. 79:617 (May, 1897). 73

——. "Decoration of Schools and School-Rooms." Haney, James P. Mun. Aff. 3:674 (Dec. 1899). 74

——. "Pictures for Our Public Schools." Van Rensselaer, M. G. Hrprs. Wkly. 41:1295 (Dec. 25, 1897); anon. Phila., Pub. Civic Club, 1895, 17 pp. 75

——. "School Sanitation and Decoration." Burrage, Severance, and Bailey, Henry Turner. Boston, D. C. Heath & Co., 1899. 12mo, 191 pp. Cloth, $1.50. 76

——. "Traveling Pictures and School-Room Decoration." Avery, Myrtilla. Bul. Univ. State of N. Y., Dec. 1900. 8vo, 43 pp. Paper, 50c. (A Bibliography.) 77

"Better City School Administration." De Weese, Truman A. Educa. R. 20:61 (June, 1900). 78

"Board, Destruction of the School." Clifford, J. Contemp. 66:626 (1894). 79

——. "Organization of City School Boards." Boykin, James C. Educa. R. March, 1897. 80

City School Systems. Draper, Andrew S. Forum 27:385 (June, 1899); Harris, Wm. T. Educa. R. 3:167 (1892); Hinsdale, B. A. Dial 25:251 (Oct. 16, 1898); anon. Dial 16:290 (1894); Gunton's 16:430 (June, 1899). 81

School Systems of Cities—*Continued.*

"Civic Instruction in Schools." Giles, Wm. A. City Govt. 2:74 (March, 1897). 82
——. "Public Schools and Good Citizenship." Skinner, Chas. R. Am. Mag. Civics 7:87 (1895). 83
——. "Gill School-City, The." Altruist, Vol. V, No. 4, p. 7 (Oct. 1897). 84
"Compulsory Education." Schaeffer, Nathan C., Miss Clare de Graffenreid and Mrs. Mary E. Mumford. Addresses delivered before the Civic Club of Philadelphia, March 21, 1896. Published by the Club. 15 pp. 85
"Continuous Sessions of Schools." Kirkpatrick, E. A. R. of Rs. 16:190 (Aug. 1897). 86
"Crowding of Public Schools, Criminal." Penniman, Jas. H. Forum 19:289, 20:547 (1896). 87
——. "Crowded Schools as Promoters of Disease." Chapin, H. D. Forum 19:296 (1895). 88
"Educational Conditions and Problems." White, A. D.; Higginson, T. W.; Hart, A. B. Educa. R. May, 1897. 89
——. "L'Enseignment primaire dans les pays civilizés." Levasseur, E. Paris, Berger-Levrault, 1897. 8vo, 638 pp. 15 fr. 90
——. "School Supervision." Pickard, J. L. New York, Appleton, 1890. 175 pp. $1. 91
——. "Unterrichtswesen." (Germany, Austria, Switzerland, France, England). Jolly, L. Pp. 937-1015 in Gustav Schönberg's "Handbuch d. Pol. Oekonomie," 3 Bd. Finanzwissenschaft. Tübingen, H. Laupp, 1885. 92
——. "Volkschulwesen." Silbergleit.. Pp. 955-976 2d supplement to 1st ed. of Conrad. See 2-10. 93
"Extension of the Public School System." Soc. Econ. 3:27, 159 (1892). 94
"Financial Relation of the Department of Education to the City Government, The." Rowe, L. S. Ann. Am. Acad. Pol. Sci. 15:186 (March, 1900). 95
"Gardens, School." Clapp, Henry Lincoln. Pop. Sci. Mo. 52:445-456 (Feb. 1898). 96
——. "School Gardens in Europe." Special Con. Rep., Vol. XX, part 2, 1900. 8vo, 221 pp. 97
——. "School Gardens and School Grounds." (Editorial). Garden and F. 10:171 (May 5, 1897). 98
"Higher Education, The Duties of the State and City to." Thomas, (Miss) M. Carey. Publications of the Civic Club, Philadelphia, 1895. 7 pp. 99
——. Municipal Public Universities. "Universités Populaires Municipales." Strauss, Paul. Revue Municipale 3:1657 (Oct. 28, 1899). 100
——. "Secondary School and College." Eliot, Charles W. Educa. R. May, 1897. 1
"Industrial Education." Eighth Annual Report of the Commissioner of Labor. Washington, Government Printing Office, 1893. 707 pp. 2
——. "Industrial Education." Dickie, George W. J. Assoc. Engng. Soc. 18:150 (March, 1897), Arch. & Buil. 26:251 (May 22, 1897); Thurston, R. H. Western Elec. April 24, 1897. 3
——. "Juvenile Crime, Industrial Schools and." Drew, A. A. W. Contemp. 63:732 (1893). 4
"Kindergartens, Why Municipalize." Kindergarten M. March, 1897. 5
——. "The Kindergarten." Cooper, Sarah B. p. 155 "International Congress," vol. V, 1893. See 43-99. 6
"Lock Step of the Public Schools, The." Shearer, William J. Atlan. 79:749 (June, 1897). 7
"Manual Training, Educational Value of." Chapin, T. F. Char. R. 6:335 (June, 1897). 8
"Meals, Provision of, at Public Schools." Chapter III, p. 194, "Some Poor Relief Questions," by Miss Gertrude Lubbock. 9
"Organization of School Systems of Cities." Draper, A. S., and others. Educa. R. 6:1 (1893), 9:304 (1895). 10
"Pensions for Teachers." Report of Commissioner of U. S. Bureau of Education, Vol. 1, p. 1079, 1894-5. 11
——. "Teachers' Pensions: The Story of a Women's Campaign." Allen, Elizabeth A. R. of Rs. 15:700 (June, 1897). 12
"Play Grounds for City Schools." Riis, J. A. Cent. 48:657 (1894). (See also under **Parks.**) 13
"Politics, How to Free Public Schools from." Rice, J. M. Forum 16:500 (1893). 14

School Systems of Cities—*Continued.*

——. "The Politician and the Public School." Jones, L. H. Atlan. June, 1896. 15

Progress. "Improvement in City Life, II." Robinson, Charles Mulford. Atlan. 83:654 (May, 1899). 16

"Public Health, Relation of the Public Schools to." Caverly, C. S. Sanitarian 41:289 (Oct. 1898). 17

"Ragged School Union." Besant, W. Contemp. 65:688 (1894). 18

Sanitation, School. Beitzell, A. J. Public Health 5:2 (Nov. 1900); Dearness, J., and McKeough, G. T. p. 96 and 113 Assn. Ex. Hlth. Officers of Ont., IXth Meeting, 1894; Gerhard, Wm. Paul. Arch. & Buil. 26:67 (Feb. 6, 1897); Stewart, D. H. Forum. 20:103 (1895); anon. Engng. Rec. April 25, May 2, 1891; Dom. Engng. June, 1896; Sanitarian 38:505 (June, 1897), 11:432 (May, 1898). 19

——. "Heating School Buildings by Gas." Progressive Age 15:34 (Jan. 15, 1897). 20

——. "Hygienic Demands for School Buildings." Sloan, A. M. Sanitarian 38:297 (April, 1897). 21

——. "Infectious Disease in Schools, Hints to Teachers Regarding." Macdonald, C. R. San. Rec. 19:625 (June 25, 1897). 22

——. School Ventilation. Dearness. John. p. 63, Proc. Assoc. Ex. Hlth Officers of Ont., XIVth Meeting, 1899; Woodbridge, S. H. San. Plumb. April 15, 1897; anon. San. 38:507 (June, 1897). 23

"Savings Banks, School." Oberholtzer, Sara Louisa. Ann. Am. Acad. Pol. Sci. 3:14 (1893). Separate, paper, 15 cts. Note on same subject. Ann. Am. Acad. Pol. Sci. 4:972 (1894); City Govt. 2:76 (March, 1897). 24

——. "Jugend u. Schulsparkassen." Senckel, Ernst. Frankfurt a/O., Harnecker u. C. 2m. 25 pf. 25

——. "Savings Bank, The, as a Public School of Primary Economic Instruction." Trenholm, William L. Bank. M. 54:860 (June, 1897). 26

——. "School Savings Banks—Their Growth in France." de Malarce, A. Bank. M. (N. Y.) 55:211 (Aug. 1897). 27

"Science in the Schools." Davis, W. M. Educa. R. (N. Y.) May, 1897. 28

"State Education at Home and Abroad." Martin, J. W. London, Fabian Soc., 1894. Fabian Tract, No. 52. 15 pp. 1d. 29

Vacation Schools. American, Sadie. Ind. 51:1499 (June 1, 1899), Commons March 1898, Am. J. Sociol. 4:309 (Nov. 1898); Robinson, Charles M. Educa. R. (N. Y.) 17:250 (March, 1899); Stewart, Seth T. Outlook 62:798 (Aug. 5, 1899); Tolman, Wm. H. Park & Outdoor Art Assn. p. 108, 1897-8; anon. Ann. Am. Acad. Pol. Sci. 13:419 (May, 1894). 30

Schwerin, Ger., Improvement. "Der Erweiterungs- und Verschönerungsplan der Residenzstadt Schwerin in seiner Entstehung und geschichtlich actenmässigen Entwickelung von 1862 bis Ende August des Jahres 1866 mitgetheilt." Demmier, G. A. Schwerin, 1867. 31

Scotland. (See under **United Kingdom.**)

Scutari.

Water Supply. "Die Wasserversorgung von Skutari und Kadikoi." Friedrich, Adolf. Oesterr. Monatschr. f. d. Oeffent. Baudienst July, 1899. 32

Seattle, Wash.

"Municipal Condition of Seattle." Graves, E. O. p. 439, Proc. Second Natl. Conf. for Good City Govt. 1895. See 6-18b. 33

——. "Seattle." Brainard, Erastus. Hrprs. Wkly. 41:1127 (Nov. 18, 1897); Colver, Henry Clay. Frank Leslie's June, 1898; Howard, William Willard, Hrprs. Wkly. 35:426 (1891); Praft, J. W. New Eng. M. n. s. 8:292 (1893). 34

"Street Railways of Seattle, Wash." St. Ry. Jour. May, 1893, p. 311. 35

"Waterways, The New, and Land Reclamation at Seattle, Wash." Engng. News 37:333 (May 27, 1897).

"**Seoul,** Electric Railroads in." Allen, Horace N. Cons. Rep. 57:63 (May, 1898). 36

Separation of Municipal from National and State Elections. (See under **Elections.**)

Servia, Local and Municipal Government in. Demombynes. Vol. I, pp. 727-735. See 2-11. 37

Settlement Movement; College, Social and University Settlements.

See also Baltimore, Boston, Buffalo, Cambridge (Mass.), Chicago, Cleveland, Des Moines, England under United Kingdom, Glasgow, Japan, Jersey City, London, Los Angeles, New York, San Francisco, Philadelphia, Pittsburg, Toronto, United Kingdom, United States, Walworth.

Andover House. (See Settlements under **Boston.**)

"Bibliography of College, Social and University Settlements." Jones, M. Katharine. 54 pp. 10 cts. For sale at 95 Rivington St., New York City. 1st edition, 1893; 2d, 1895. 38

——. "Bibliography of College, Social and University Settlements." Gavit, John Palmer. (3d Edition of above.) Cambridge Co-operative Press, 1897. Pamphlet, 74 pp. Gratis. 39

——. "Bibliography of College, Social, University and Church Settlements." Montgomery, Caroline Williamson. (4th edition of above). Compiled for the College Settlements Association. Printed in New York, 1900. Pamphlet, 68 pp. 10 cts. 40

"Church to the Settlement, The Relation of the." Gordon, Clarence. Commons Vol. 2, No. 7, p. 1 (Nov. 1897). 41

——. "The Church and the Settlement." Gavit, John P. Commons Vol. 3, No. 1, p. 3 (May, 1898). 42

"College Settlements Association." Outlook Dec. 29, 1894.

——. "Les 'College Settlements.'" Cremnitz, M. Revue Philanthropique Oct. 10, 1897. 43

Commons, Chicago. (See Settlements under **Chicago**).

"Denison, Edward." Green, John Richard. Macmillan's M. Sept. 1871. 44

——. "Letters and other Writings of Edward Denison." Leighton, Baldwin (Editor). London, Bentley, 1875. 16mo, 3s. 6d. 45

"Experiment in Altruism, An." (Social Settlement Movement). Hastings, Elizabeth. New York, Macmillan, 1895. 215 pp. 75c. 46

"Function of the Social Settlement, A." Addams, Jane. Ann. Am. Acad. Pol. Sci. 13:323-345 (May, 1899). 47

"Future of the Social Settlement." Elliott, J. L. Ethical Record Dec. 1899. 48

Hull House. (See Settlements under **Chicago**).

"Idea of University Settlements." Woods, Robert A. Andover R. 18:317 (1892). (See also Chap. III, p. 57, "Philanthropy and Social Progress," same subject). 49

"Labor Question, Social Settlements and the." Addresses by leading American Settlement Workers at 23d Nat'l Conf. of Charities and Corrections, Grand Rapids, June, 1896. Published separately by The Commons, Chicago. 25c. (See also **Labor and the Municipality**). 50

"Misrepresentations of Settlement Work." Outlook 57:389 (Oct. 9, 1897).

"Missions and Settlements." Gavit, John P. Commons Vol. II, No. 10, p. 3, Feb. 1898). 51

——. "The Ways of Settlements and Missions." Barnett, S. A. 19th Cent. 42:978 (Dec. 1897), Ecl. M. 130:189 (Feb. 1898). 52

"Municipal Reform, Social and College Settlements of America and their Relation to." Alden, Percy. Outlook 51:1090 (1895). 53

"Necessity for Social Settlements, Objective." Addams, Jane. Chap. II, p. 27, "Philanthropy and Social Progress." "Subjective Necessity," Chap. I. See also Forum 14:345 (1892), by same author. 54

"Neighboring Guilds." Coit, Stanton. London, Swan S. & Co., 1891. 150 pp. 2s. 6d. Reviewed by Edward King in Char. R. 1:77 (1891). 55

"Philanthropy and Social Progress." Adams, Henry C., editor. New York, T. Y. Crowell & Co., 1893. 268 pp. $1.50. Essays by Jane Addams and R. A. Woods on Social Settlements. 56

"Place of University Settlements." Scudder, V. D. Andover R. 18:339 (1892). 57

"Plan of Social University." Swift, Morrison I. Ashtabula, O., Chas. H. Golluth, printer, 20c. 58

"Politics, Settlement Houses and City." Woods, Robert A. Mun. Aff. 4:395 (June, 1900). 59

Settlement Movement—*Continued.*

"Report on the Questions drawn up by Present Residents in our College Settlements and Submitted to Past Residents." Reprinted for the College Settlements Association, 1897. Pamphlet, 24 pp. 60

"Scientific Aspect of University Settlements." Perrine, F. A. C. Science 21:91 (1893). 61

Settlement Work, Discussion of. Char. R. 4:462 (June, 1895).

"Social Amelioration and the University Settlement." McLean, S. J. Can. M. April, 1897. 62

"Socialism, The Settlement and." Foster, Maud B. Commons Vol. IV, No. 1, p. 3, May, 1899. 63

"Social Settlements." Henderson, C. R. New York, Lentilhon & Co., 1899. 16mo, 196 pp. Cl. 50c. Also see Hanson, J. M. The Kingdom (St. Paul), Sept. 27, 1895. 64

——. "Social Settlements and the Civic Sense." Campbell, Helen. Arena 20:589 (Nov.-Dec. 1898). 65

"Tenement Neighborhood Idea, University Settlement." Moore, Helen. P. 35, "The Literature of Philanthropy." edited by Francis A. Goodale. 66

"Toynbee, Arnold." Addams, Herbert. Char. R. 1:12 (Nov. 1891); Gilman, (Mrs.) M. R. F. Lend a H. 4:330 (1889); Montague, F. C. J. H. Univ. Studies VII:1. 70 pp. (1889). (The appendix contains a paper on the New York Neighborhood Guild by Chas. B. Stover). 67

——. "Arnold Toynbee, a Reminiscence." Milner, Alfred. London, Edw. Arnold & Co., 1895. 8vo. Cl. 2s. 6d. 68

Toynbee Hall. (See Settlements under **London**).

"Trained Workers for the Poor." Hill, Octavia. 19th Cent. Jan. 1893. 69

"Universities and the Poor." Barnett, S. A. 19th Cent. 15:255 (1884). 70

"Universities and the Social Problem, University Settlements in East London." Knapp, J. M. London, Rivington, 1895. 235 pp. 71

University Settlements. Barnett, S. A. 19th Cent. 38:1015 (1895), Chaut. 18:393 (Jan. 1894); Cummings, E. Q. J. Econ. 6:257 (1892); Ecl. M. 63:183 (Feb. 1896); Freeman, H. F. Lend a H. 5:154 (1890); Gulick, Sydney L. Chap. III, in "The Growth of the Kingdom of God." N. Y., Revell, 1897. 12mo, cloth, $1.50; Woods, R. A. Chap. III, p. 79 "English Social Movements"; anon. Gunton's M. 10:429 (1896). 72

——. "University Settlements, their Point and Drift." Woods, Robert A. Q. J. Econ. 14:167 (Nov. 1899). 73

——. "University Settlements and the Social Question." Davies, Henry. Self-Cult. 10:21 (Sept. 1899). 74

——. "University and Social Settlements." Reason, W. London, Methuen & Co., 1898. 12mo, 195 pp. Cloth, $1. 75

"Value of the Social Settlements, Scientific." Hegner, Herman F. Am. J. Sociol. 3:171 (Sept. 1897), R. of Rs. 16:469 (Oct. 1897). 76

"Women's University Settlements." Talbot, M. Econ. R. 5:489 (1895). 77

"Working Population of Cities and what the Universities Owe them." Swift, M. I. Andover R. 13:589 (1890). 78

Sewage Disposal, Sewerage Systems. (See also **Sanitation** and **Water Supplies**).

See also Acton, Aldershot, Alliance, Altoona, Amsterdam, Antwerp, Atlanta, Austin, Baltimore, Berlin, Birmingham, Bolton, Bordeaux, Boston, Brocton, Bradford (Eng.), Bremen, Brookfield (Mo.), Brussels, Budapest, Bury (Eng.), Calcutta, Cambridge (Eng.), Canada, Canton, Cardiff (Wales), Central Falls, Charlottenburg, Chautauqua, Chicago, Chichester, Cincinnati, Cleveland, Clinton, Cohoes, Cologne, Concord, Connecticut, Constantinople, Copenhagen, Depew (N. Y.), Dresden, Dublin, Edinburgh, England under United Kingdom, Exeter, Florence, Frankfort a. M., Germany, Ghent, Glasgow, Gothenberg, Great Britain under U. K., Hale (Eng.), Hamburg, Hamilton (Ont.), Hampton (Eng.), Hanley, Havana, Havre, Indiana, Indianapolis, Karachi, Kewanee (Ill.), Kingston, Königsberg, Lawrence (Mass.), Leeds, Leicester, Leith, Liberty, Liverpool, Lincoln, London, London (Ont.), Lyons, Madison (Wis.), Madrid, Manchester (Eng.), Marion, Marseilles, Massachusetts, Medford, Melbourne, Memphis, Mendota, Mexico, Milwaukee, Montreal, Munich, New Jersey, New Orleans, Newton, New York, Nice, Nottingham, Nuremberg, Oberlin, Oldham, Oswestry,

Sewage Disposal—*Continued.*

Ottawa, Overbrook (N. Y.), Paris, Paris (Texas), Pasadena (Cal.), Passaic Valley (N. J.), Peoria, Philadelphia, Plainfield, Providence, Pullman, Reading, Reigate, Rhode Island, Rhyl (Wales), Rome, Rotterdam, St. Gall, St. Louis, St. Petersburg, Salt Lake City, San Francisco, Sheffield, Shipley, Southampton, Sutton, Spandau, Staines (Eng.), Stettin, Stockholm, Tampico, Toronto, Trieste, United Kingdom, United States, Victoria, Vienna, Walsall, Washington, Wilmington, Wimbledon, Wolverhampton, Woonsocket (R. I.), Worcester, Zurich.

"Analysis, Sewage; A Practical Treatise on the Examination of Sewage and Effluents from Sewage; including a Chapter on Utilization and Purification." Wanklyn, Alfred J.; Cooper, W. J. London, Paul, 1899. 8vo, 232 pp. Cl. $2. 79

——. "Practical Hints on the Analysis of Water and Sewage." Barwise, S. Public Health July, 1899. 80

"Assessments, Sewer." Snow, F. Herbert. J. Assn. Engng. Soc. 18:1 (Jan. 1897), 18:189 (March, 1897); anon. Mun. Engng. 14:38 (Jan. 1898). 82

——. "Municipal Sewage Systems and Assessments." Bouton, George T. Mun. Engng. 19:203 (Sept. 1900). 83

Bacterial Treatment of Sewage. Adams, S. H. Surveyor 18:560 (Nov. 16, 1900); Clowes, Frank, Nature 62:128 (June 7, 1900), San. Rec. 24:371 (Oct. 27, 1899); Dibdin, W. J. and Thudichum, George. Engng. Rec. 38:404 (Oct. 8, 1898); Dibdin, W. J. Sanitary Rec. (London) Dec. 11, 1896; Fletcher, Robert. San. Rec. 25:440 (May 25, 1900); Hering, Rudolph. Engng. M. 15:960 (Sept. 1898); Martin, Arthur J. San. Rec. 23:122, 138, 163, 179, 206 (Feb. 10 to March 10, 1899); Owen, James. Engng. Rec. 40:669 (Dec. 16, 1899); Rideal, Samuel. San. Rec. 23:48, 67, 117 (Jan. 20-Feb. 10, 1899), J. Soc. of Arts 46:81 (Dec. 17, 1897), 47:683, 695, 707, 719 (July 7-28, 1899); Scoble, H. T. Sanitarian 44:298 (April, 1900); Talbot, Arthur N. Mun. Engng. 16:158 (March, 1899); anon. Engng. Dec. 9, 1898, 68:462 (Oct. 13, 1899); Eng. Rec. 38:33, 185, 561 (June 11, July 30, Nov. 26, 1898), 39:97 (Dec. 31, 1898), 39:229 (Feb. 11, 1899), 40:167, 195, 476 (July 22, 29, Oct. 21, 1899), 41:319 (April 7, 1900); Mun. J. & London 8:1146 (Oct. 20, 1899); Eng. (London) 89:530 (May 25, 1900); San. Rec. 25:466 (June 1, 1900). 84

"Bibliography of House Drainage, Plumbing Work and Sewage Disposal for Houses." Gerhard, Wm. Paul. New York, 1897. Leaflet, 3 pp. 85

"Cesspool, The." Kinnicutt, Leonard P. Mun. Engng. 19:99 (Aug. 1900). 86

"Chemical Treatment of Sewage, Analysis and the." Kinnicutt, Leonard P. Engng. News 41:294 (May 11, 1899). 87

——. "Treatment of Sewage by Chemicals in perfect solution." (Proposed treatment at Oldham). Law, Herbert Henry. Sanitary Plumber (N. Y.) Dec. 1, 1897. 88

"Civilization, Sewage and." Railroad Gaz. 31:504 (July 14, 1899).

"Cleaning and Sewerage of Cities." Baumeister, R. Adopted from the German with the permission of the author by J. M. Goodell. New York, Engineering News Pub. Co., 1891. 291 pp. $2.50. 89

"Cleaning Sewers." Fletcher, Elmer D. Engng. Rec. 41:328 (April 7, 1900). 90

——. "Cleaning, Catch-Basins and Sewers." Folwell, Prescott A. Engng. Rec. 41:563 (June 16, 1900), 91

——. "Systems of Sewer Flushing and Suggestions on Flush-Tank Design and Construction." Rosewater, Andrew. Engin. News 37:275 (May 6, 1897). 92

"Coal, Filtration of Sewage through." Allen, Kenneth. Mun. Engng. 14:333 (June, 1898); Hill, A. Bostwick. Mun. Eng. 14:29 (Jan. 1898); Hill, A. Bostwick, and Garfield, Joseph. Engng. Rec. 41:101 (Feb. 3, 1900); anon. Mun. Engng. 14:248 (May, 1898). 93

Coke in Sewage Purification. Alvard, John W. Prog. Age 16:394 (August 15, 1898); Clowes, Frank. Am. Gas Light J. 71:812 (Nov. 20, 1899); anon. J. Gas Lgt. 74:998 (Oct. 24, 1899). 94

"Combined Drainage: Its Pros and Cons." Priestley, Joseph. Sanitarian 42:32 (Jan. 1899). 95

——. "Combined and Separate Systems of Sewerage, A Comparison of the." Collins, C. P. Mun. Engng. 15:222 (Oct. 1898). (See also Separate Systems below). 96

"Construction and Maintenance, Sewer." Engng. Rec. 40:74 (June 24, 1899).

——. "Cost and Construction of Thirty-five Sewerage Systems." Engng. Rec. Oct. 24, 1891, p. 331; Engng. News Oct. 24, 1891, p. 397. 97

——. "Experience in Sewer Construction." Hastings, L. M. J. Assoc. Engng. 22:84 (March, 1899). 98

"Damages for Inadequate Sewerage Works." Engng. Rec. 38:287 (Sept. 3, 1898).

Sewage Disposal—*Continued.*

"Death Rate in Cities, Influence of Sewerage and Water Supply on the." Smith, Erwin F. Supplement Michigan Board of Health Report for 1885. 168 pp. 99

"Designing, Construction and Maintenance of Sewerage Systems." Folwell, A. Prescott. London, Chapman & Hall, 1898. 8vo, 372 pp. Cl. $3. New York, Wiley & Sons, 1900. 3d ed., 8vo, 445 pp. Cl. $3. 100

"Designs of Town Sewerage Schemes, Some Consideration on the." Wood, Frank. Eng. (London) Nov. 12, 1897. 1

——. "New Units in the Design of Sewers." Engng. Rec. 39:369 (March 25, 1899). 2

"Dilution Process of Sewage Disposal, The." Hering, Rudolph. Engng. M. 15:575 (July 1898); anon. San Rec. 22:187 (Aug. 19, 1898), 22:215 (Aug. 26, 1898). 3

"Drainage." Park & Cem. 9:30 (April 1899).

——. "Sewerage and Drainage of Cities." Waring, G. E. Am. Arch. 6:197 (1879). 4

——. "The Sanitary Drainage of Houses and Towns." Waring, Geo. E., Jr. New York, Hurd & Houghton, 1876. 12mo, 336 pp. $2. 5

"Effluent from Sewage Precipitation Works, Treatment of the." Allen, Kenneth. Mun. Engng. 13:125 (Sept. 1897). 6

"Estuaries, The Disposal of Sewage in." Woodhead, G. Sims. J. San. Inst. 19:2 (Apr. 1898). 7

Europe, Sewage Disposal in. Billings, J. S. Engng. Rec. Nov. 10, 1894; Hazen, Allen. J. Assoc. Engng. Soc. 15:216 (1895); Engng. News Mar. 27, 1886, Trans. Am. Soc. Civ. Eng. Dec. 1886. See also 56-40a, 40b. 8

"Evolution of a Sewage System, The." Martin, Arthur J. San Rec. 25:492 (June 8, 1900). 9

"Excavation, Sewer." Crowell, Foster. Pub. Imp. 1:38 (June 1, 1899). 10

"Excreta, The Removal of." Maxwell, William H. San Rec. 20:492 (Nov. 5, 1897). 11

"Experiments, Important Sewage Disposal." Reid, George. San. Rec. 25:267 (Mar. 30, 1900), 25:292 (April 6, 1900), 25:314 (April 13, 1900). 12

Farming, Sewage. Disposal of Sewage by Irrigation. Campbell, A. W. Mun. World 7:201 (Oct. 1897); Carpenter, A. J. Soc. Arts. Feb. 4, 1887; Dibdin, W. J. San Rec. 21:335 (April 1, 1898); Garrett, J. H. San. Rec. Aug. 28, 1896; Janin, George. San. 45:193 (Sept. 1900); Waring, Geo. E. Engng. News Feb. 15, 1894; Watson, W. M. Can. Eng. 6:151 (Oct. 1898); anon. Am. Arch. 18:297 (1885); Engng. News Feb. 23, 1893, pp. 180, 183. 13

——. "Die Förderung d. Hygiene u. d. Beseitigung städtischer Kanalwasser durch Berieselung." Degener, P. Frankfurt a. M., Jaeger, 1894. 8vo. 26 pp. 1m. 14

——. "Sewage Irrigation in Europe and America." Roechling, H. Alfred. Sanitary Record (London), Dec. 4, 1896. 15

Filtration of Sewage. Crane, Albert S. Mun. Engng. 14:126 (Mar. 1898); Law, Henry. San. Rec. Nov. 20, 1896; Reid, G. Builder 73:7 (July 3, 1897); Van Buskirk, W. F. Mun. World 9:114 (July 1899). (See also Coal and Coke above.) 16

Flushing Devices, Flushing of Sewers. Phillips, Asa E. Pro. Am. Soc. Mun. Imp. (5th yr.) Pt. II, p. 70 (Oct. 1898), City Govt. 5:184 (Nov. 1898), Engng. Rec. 38:516 (Nov. 12, 1898), Mun. Engng. 16:24 (Jan. 1899); Rosewater, Andrew. Engng. News 37:275 (May 6, 1897); anon. Engng. Rec. 38:551 (Nov. 26, 1898). 17

Foreign Countries, Sewage Disposal in. See 56-40a, 40b.

"Future of the Sewage Question, The." Willoughby, Edward F. San. Rec. 20:305 (Sept. 17, 1897). 18

——. "Future Methods of Sewage Disposal." Hedenberg, W. L. Engng. M. 10:76 (1895). 19

"Gases in Sewers, The Effective Prevention and Dissemination of Noxious." Latham, Frank. San. Rec. 22:105 (July 29, 1898). 20

"House Drainage and Sewerage." Sanitarian 42:26 (Jan. 1899). 21

——. "Construction and Ventilation of House Drains." Hill, A. Bostock. Sanitarian 42:28 (Jan. 1899). 22

"Inland Sewage Disposal." Bassett, C. Ph. Trans. Am. Soc. Civ. Engrs. 25:125 (1891). 23

Irrigation, Disposal of Sewage by. (See under Farming, Sewage, above.)

"Lectures on Water Supply, Sewerage and Sewage Utilization." Corfield, W. H. London, Spon, 1874. Paper, $1.00. 24

"Liernur System of Sewerage and SewageTreatment, The." City Govt. 7:90 (Oct. 1899). 25

Sewage Disposal—*Continued.*

" Maintenance, Sewer." Parmley, W. C. J. Assoc. Engng. Soc. 24:370 (June, 1900), Mun. Engng. 19:109 (Aug. 1900). 26

" Manufacturing Wastes, The Relation of, to the Sewerage Problem." Engng. News 41:334 (May 25, 1899). 27

Pipe. " Dimensions of Sewer Pipe." Thompson, A. D. Mun. Engng. 14:123 (Mar. 1898). 28

——. " A Steel Street Sewer." Engng. Rec. 37:388 (April 2, 1898).

——. " The Strength of Sewer Pipe and the Actual Earth Pressure in Trenches." Barbour, Frank A. J. Assoc. Engng. Soc. 19:193 (Dec. 1897). 29

Poudrette. " Die Verwandlung der Faeces in Poudrette." Vogel. Gesund. Ing. March 15, 1897. 30

" Principles of Drainage and Sewerage." Dom. Engng. Aug. 15, 1900. 31

Purification of Sewage, General Articles on. Barrow, E. G. Can. Eng. 6:121 (Sept. 1898), City Govt. 5:192 (Nov. 1898); Brix. Gesund. Ing. Jan. 15, 1898; Dibdin, W. J. San. Rec. (serial) 19:334 et seq. to 20:164 (1897); Herman, E. A. Mun. Engng. 19:195 (Sept. 1900), Cal. Mun. 3:49 (Sept. 1900); Janin, George. Can. Soc. Civ. Eng. April 12, 1900; Lowcock, Sidney R. Surveyor 18:300 (Sept. 14, 1900); Parry, W. Kaye. Builder Sept. 3, 1898, City Govt. 8:7 (Jan. 1900); Rideal, S. San. Rec. (serial) 24:414 (Nov. 10, 1899), et seq to 25:154 (Feb. 23, 1900); Thomson, Gilbert. Arch. & Cont. Rep. 58:25 (Sept. 3, 1897), San. Rec. 20:284 (Sept. 10, 1897), San J. 4:350 (Sept. 1897); Thudichum, George. San. Rec. Dec. 18, 1896; anon. Gesund. Ing. Jan. 15, 1897; Oesterr, Monatschr. f. d. öffent. Baudienst May 1897; Ed. R. No. 385, p. 151 (July 1898). 32

——. " Natural Purification of Sewage." Mills, Hiram F. Lend a H. Sept. 1890. 33

——. " The Purification of Sewage and Wated." Dibdin, W. J. London, Sanitary Pub. Co., 1898, 2d ed. pp. 292. 8vo. Cl., $8.40. 34

——. " The Purification of Sewage: Being a Brief Account of the Scientific Principles of Sewage Purification, and their Practical Application." Barwise, Sidney. London, 1899. 12mo. Cl., $2.00. 35

——. " Sewerage and Sewage Purification." Baker, M. N. New York, D. Van Nostrand Co., 1896. 16mo, 144 pp. 50 cts. 36

——. " Standard of Purity for Sewage Effluents." Rideal, S. San. Rec. 22:320 (Sept. 23, 1898). 37

——. " Still Another Purifying Box." Butterworth, Irvin. Prog. Age 16:151 (Apr. 1, 1898). 38

" Rainfall and Run-Off in Relation to Sewerage Problems." Parmley, Walter C. J. Assoc. Eng. Soc. 20:204 (March 1898). 39

" Recently Improved Methods of Sewage Disposal." Johnson, John Butler. Bull. Univ. Wis., June 1900, Municipality vol. 1, no. 4, p. 1 (Oct. 1900), vol. 1, no. 5, p. 1 (Dec. 1900). 40

" Regulations as to Sewers and Drains." Stephens, J. E. R. San. Rec. 23:535 (June 23, 1899). 41

" Reports, Proposed Form for Sewer." Pro. Am. Soc. Mun. Imp. (5th yr.) Pt. II, p. 205 (Oct. 1898). 42

" River Pollution." Flower, Lamorock. J. San. Inst. 18:317 (Oct. 1897). 43

——. " Pollution of Running Streams by Sewage." Tooke, C. W. Mun. Engng. 19:87 (Aug. 1900). 44

——. " Sewage Disposal Works. Guide to the Construction of Works for the Prevention of the Pollution by Sewage of Rivers and Estuaries." Crimp, W. Santo. London, 1894. $7.50. 45

——. " Stream Contamination and Sewage Purification." McMath, R. E., and others. Pro. Am. Soc. Civil Engineers 25:405 (Aug. 1899). 46

——. " Streams and Sewage." Mun. & Ry. Rec. 5:317 (Dec. 15, 1899). 47

" Roots, Injuries to Sewers by." Engng. Rec. 38:251 (Aug. 20, 1898). 48

" Rural Districts, The Disposal of Sewage in." Stott, H. Public Health, Sept. 1899.

——. " Sewerage Purification in Rural Districts." Davenport, J. Aldersey. San. Rec. 20:553 (Nov. 1900). 49

" Sand Filters, The Somersworth, N. H." Engng. Rec. 38:271 (Aug. 27, 1898).

" Sanitary Sewerage." Griggs, Julian. City Govt. 6:28 (Feb. 1899). 50

——. " Perfect Sewerage and Perfect Health." Morrison, W. R.; Sinclair, Graham M. San. Plumb. May 1, 1899; Meyer, Louis F. San. Plumb. April 15, 1899; Wade, James J. Dom. Engng. April, 1899. 51

Sewage Disposal—*Continued.*

——. "Report of the Committee on Sewerage and Sanitation." Eldridge, W. K. Mun. Engng. 19:192 (Sept. 1900). 52

Sceptic Tanks. (See Bacteriological Treatment above.)

"Scott-Moncrieff System of Sewage Disposal, The." Eng. (London) 89:90 (Jan. 26, 1900).

"Sedimentation Process in Sewage Disposal, The." Talbot, Arthur N. San. Rec. 20:172 (Aug. 13, 1897). 53

"Separate System of Sewerage." Staly, Cady, and G. S. Pierson. New York, Van Nostrand, 1891. 281 pp. 54

——. "Advantages of the Separate Sewage System." Watson, W. M. Can. Eng. 5:188 (Nov. 1897). 55

——. "Ueber Trennungssysteme." Gesundheits Ingenieur 20:241 (Aug. 15, 1897). 56

——. "Sewerage and Health." Mailler-Kendall, Theo. San. Rec. 25:111, 152, 176, 201 (Feb. 9, Feb. 23, March 2, March 9, 1900). 57

Sewage Disposal, General articles on. Andrews, Elmer L. Mun. Engng. 16:73 (Feb. 1899); Bazalgette, C. M. Eng. M. 17:106, 213 (1877); Billings, John S. Hrprs. 71:577 (1885); Blyth, A. W. Engng. Times, May, June, July, 1900; Cannell, C. S. San. Rec. March 20, 1896; Flagg, J. Foster. Pav. & Mun. Engng. 5:1 (1893); Francis, Charles. Fire & W. 22:258 (July 31, 1897), Mun. Engng. 13:340 (Dec. 1897); Fuertes, James H. Pro. 24th An. Meeting N. J. Sanitary Assn., 1898, p. 69; Garstang. Sanitarian 44:487 (June, 1900); Grunsky, C. E. Sanitarian 11:289 (April, 1898); Hering, Rudolph. Engng. M. 8:1007 (1895); Hill, G. Everett. Pp. 138-141 Pro. 3rd An. Conv. of the League of Am. Mun., 1899. 8vo, 148 pp., Public Imp. 1:268 (Oct. 1, 1899), City Govt. 7:89 (Oct. 1899), Cal. Mun. 1:139 (Dec. 1899); Horetska, Charles. Can. Eng. 5:157 (Oct. 1898); Hosmer, G. W. Hrprs. Wkly 34:565 (1890); La Ruse, Benj. F. Sci. Am. Sup. June 11, 1898; McClintock, John N. Pub. Imp. 3:319 (May 15, 1900); McKellar, P. D. p. 70, Assoc. Ex. Health Officers of Ont. 1894; Mansergh, James. Surveyor 18:538 (Nov. 9, 1900); Marston, A. Engng. Rec. 41:177 (Feb. 24, 1900); Mitchell, S. A. J. Assn. Engng. Soc. 12:463 (1893); Waring, George E. 47:939 (1894); Watson, W. M. Can. Eng. March, 1897; anon. Engng. Rec. 38:1 (June 4, 1898); San. Rec. 22:139 (Aug. 5, 1898); Engng. Rec. 38:310 (Sept. 10, 1898). 58

——. "A Digest of Facts Relating to the Treatment and Utilization of Sewage." Corfield, W. H. London, Macmillan, 2d ed., 1871. 8vo, 343 pp. 10s. 6d. 59

——. "Menschliche Exkremente in national-ökonomischer, hygienischer, finanzieller u. landwirtschaftlicher Beziehung." Heiden, E. Hannover, Cohen, 1882. 8vo, 96 pp. 1m. 50pf. 60

——. "Modern Methods of Sewage Disposal for Towns, Public Institutions and Isolated Houses." Waring, G. E. New York, D. Van Nostrand & Co. 253 pp. $2.00. 61

——. "On Sewage Treatment and Disposal for Cities, Towns, Villages, Private Dwellings." Wardle, Thomas. Manchester, 1893. 8vo, ill. Cl. $6. 62

——. "Sewage Disposal." Kiersted, Wynkoop. New York, Wiley & Sons, 1894. 196 pp. 12mo, cl. $1.25. 63

——. "Sewage and Sewage Disposal." Robinson, H. New York, Spon & Chamberlain, 1896. 8vo, 192 pp. Cl. $4.50. 64

——. "Sewage Question." Fergus, Andrew. Glasgow, Porteous Bros., 1872. 34 pp.. 1s. 65

——. "Sewage Treatment, Purification and Utilization." Slater, J. W. London, 1897. 12mo, cl. $2.25. 66

Sewer Systems. "Kanalisation und Abfuhr." Vogel, J. H. Pp. 522-532, 1st supplement to 1st ed. Conrad. See 2-10. 67

——. "De l'Application du tout-a-l'Egout." Le Génie Civil Oct. 9, 1897. 68

——. "L'Epandage des Eaux d'Egout." Rendu, Ambroise. Revue Municipale 3:1689 (Nov. 11, 1899). 69

——. "Untersuchungen zur Kanalisation." Soyka, I. München, Oldenbourg, 1885. 4m. 70

"Sludge Disposal, The Problem of Sewage." Hedenberg, W. L. Mun. Engng. 18:10 (Jan. 1900). 71

——. "Illuminating Gas from Sewage Sludge." J. Gas Light 76:1140 (Nov. 6, 1900), Am. Gas Light J. 73:851 (Nov. 26, 1900). 72

——. "Sewage Sludges." Engng. Rec. 39:209 (Feb. 4, 1899).

——. "The Conversion of Sludge into Fuel." San. Rec. 20:474 (Oct. 29, 1897).

Sewage Disposal—*Continued.*

" Small Cities, Sewers for." Phillips, Alfred E. Wisconsin Eng. (Madison, Wis.) Jan, 1897. 73

——. " Economical Sewage Purification for Small Communities." Fletcher, Robert. Public Improvements 2:172 (Feb. 15, 1900). 74

——. " Sewerage and Sewage Disposal of a Small Town." Savage, E. B. London, Biggs, 1895. 8vo, cl. $2.00. 75

——. " Village Sewerage Schemes." Cox. J. San. Inst. 20:33 (April, 1899). 76

" Storm-Water Sewers, Notes on." Engng. Rec. 38:379 (Oct. 1, 1898). 77

——. " A Graphical Method for Determining the Capacity of Storm-Water Sewers." Burns, Clinton S. Engineering Journal (Stanford Univ.) May, 1897. 78

——. " The Provision for Storm Water in Sewage Purification Work." Martin, A. J. Engng. News 42:327 (Nov. 16, 1899). 79

" Supervision of Sewerage Work, The." Engng. Rec. 37:269 (Feb. 26, 1898).

" Tables and Diagrams for facilitating the making of estimates for sewerage Work." Swaab, S. M. New York, Engineering News Pub. Co., 1896. Pamphlet, 4to, 20 pp. 16 pl. 50 cts. 80

" Treatment of Sewage." Horetzky, C. P. 65 Assoc. Ex. Hlth. Officers of Ont., XIIIth Meeting, 1899; Tidy, C. M. J. Soc. Arts Oct. 8, 1886. 81

——. " Die Behandlung städtischer Spüljauche mit besonderer Berücksichtigung neuerer Verfahren." Dunbar. Gesund. Ing. Dec. 15, 1898. 82

" Typhoid, Sewage and." Sat. Rev. 84:414 (Oct. 16, 1897). (See also **Water Supply.**)

" Utilization of Town Sewage." Burn, Robert Scott. London, 1865. 83

——. " Sewage Utilization." Burke, Ulick Ralph. London, Spon, 1873. 2nd ed., 12mo. 3s. 6d. 84

——. " Sewerage and Sewage Utilization." Corfield, W. H. New York, Van Nostrand, 1875. 75 cts. 85

——. " Utilization of Town Sewage." Maskery, Alderman. San. Rec. March 19, 1897. 86

——. " Verwertung d. städtischen Fäkalien." Heiden, Ed.; Müller, Alex; v. Langsdorff, Karl. Hannover, Cohen, 1885. 8vo, 467 pp. 9m. 50 pf. 87

Ventilation of Sewers. Edwards, H. C. J. San. Rec. 24:167 (Aug. 25, 1899); Folwell, A. Prescott. Engng. Rec. 41:201 (March 3, 1900); Morgan, J. City Govt. 7:38 (Aug. 1899); Read, R. City Govt. 7:14 (July, 1899), San. Rec. 24:51 (July 21, 1899); Stewart, Alex. San. Rec. 22:217 (Aug. 26, 1898); Walford, Edward. San. Rec. 20:93, 119 (July 23, 30, 1897); anon. San. Rec. 24:81 (July 28, 1899); Plumber Dec. April 1, 1897. 88

" Water Purification, Sewage Disposal and." McClintock, John N. Mun .Engng. 19:199 (Sept. 1900), City Govt. 9:77 (Sept. 1900). 89

Shanghai, China.

" Telephone and Street Railway Systems in Shanghai." Goodnow, John. Elec. World 33:86 (Jan. 21, 1899), Cons. Reports 59:552 (April, 1899). 90

Sheffield, Eng.

" Architecture of our large Provincial Towns, Sheffield, England." Builder, 73:273 (Oct. 9, 1897). 91

" Civic Center, Sheffield as a." Mun. J. & London 8:1019 (Sept. 15, 1899).

Lighting. " Wages and Conditions of Labour at the Sheffield Gas-Works." J. Gas Light 76:1529 (Dec. 18, 1900).

" Sewage Disposal at Sheffield, England." Anon. Engng. Rec. 41:543 (June 9, 1900); Surveyor 17:346, 372, 400 (March 30, April 6, 13, 1900). 92

" Snow Problem is Dealt with in Sheffield, How the." San. Rec. 26:298 (Oct. 5, 1900).

Street Railways. " The Sheffield Corporation Tramways." Anon. Ry. World 8:309 (Aug. 10, 1899); Mun. J. and London 8:951 (Aug. 25, 1899); Elec'n (London) Sept. 1, 1899; Ty. and Ry. World 8:340, 423, 483 (Sept. 7, Nov. 2, Dec. 7, 1899); St. Ry. R. 10:17 (Jan. 15, 1900); Mun. J. 9:543 (July 13, 1900). 93

" **Shipley [Eng.]** Sewerage Works." San. Rec. 24:281 (Sept. 29, 1899).

Shoreditch, Eng. (See under **London.**)

"**Siam,** Railroads and Street-Car Lines in." King, Hamilton. Cons. Rep. 62:232 (Feb. 1900). 94

"**Simla [India]** Water-Works." Anon. Engng. Rec. 38:321 (Sept. 10, 1898); Goument, C. E. V. Ind. and East. Eng. Jan. 21, 1899. 95

"**Singapore** Municipality and the Gas-Works." J. Gas Light 76:1591 (Dec. 25, 1900).

Single Tax in Cities. (See Taxation under **Finance.**)

Sinking Funds. (See under **Finance.**)

"**Sioux City** Traction Company, Recent Track Construction of the." Wilson, Chester P. St. Ry. J. 14:439 (Aug. 1898). 96

"**Skaneateles [N. Y.]** Water Works Company v. Village of Skaneateles." Mun. Aff. 4:222 (March, 1900).

Slaughter Houses, Municipal. (See **Abattoirs.**)

Slums. (See under **Housing.**)

Smoke Nuisance.

See also Glasgow, Paris, Philadelphia.

"Abatement, Smoke." Bryan, Wm. H. Cassier's 19:17 (Nov. 1900). 97

——. "A Century's Smoke Abatement." Mun. J. & London 8:1068 (Sept. 20, 1899).

——. "Fortschritte auf dem Wege zur Rufsbeseitung." Gesund. Ing. Aug. 31, 1897. 98

"Coal Combustion and Smoke Prevention." Am. Gas Light J. 69:298 (Aug. 29, 1898).

"Economy of Fuel, Smoke Consumption and." Mason, Frank H. Cons. Rep. 60:49 (July, 1899). 99

"Furnace, A New Smoke-Consuming." Engng. Rec. 40:344 (Sept. 9, 1899).

"Health, Effects of Smoke and Fog upon." Littlejohn, Harvey. San. Rec. 19:592 (June 18, 1897). 100

"Nuisance, The Smoke." (Editorial.) Elec. Eng. 24:134 (Aug. 12, 1897). 1

"Practical Smoke Prevention." Nicholson, W. (Serial.) San. Rec. 21:391 (April 15, 1898), 24:67, 115, 179, 226, 292, 340, 382, 430, 475, 523, 565 (July 28 to Dec. 29, 1899), 25:63, 110, 151, 199, 239, 287, 334 (Jan. 26 to April 20, 1900). 2

"Prevention of Smoke, The." Dee, Thomas G. San. Rec. 24:155 (Aug. 25, 1899); Anon. Engng. Rec. 40:365 (Sept. 16, 1899). 3

"Purification, Smoke and its." Rideal S. San. Rec. 25:89 (Feb. 2, 1900). 4

Social Statistics of Cities. (See under **Statistics).**

Socialism, Municipal. (See under **Municipal Control, Municipal Ownership).**

"**South America,** The Electric Railway Field in." St. Ry. Rev. 8:571 (Aug. 1898). 5

Southampton, Eng.

"Lodging House at Southampton, Muncipal." Mun. J. & London 8:1191 (Nov. 3, 1899). 6

"Rise of Southampton, The Rapid." Mun. J. & London 8:166 (Feb. 9, 1899).

"Sewage Precipitation Works and Refuse Destructor, Southampton." Bradley, J. P. Cons. Rep. 1893, No. 154, pp. 300-5. See also Engng. News Sept. 1, 1892, p. 198. 7

Street Railways. "Southampton Corporation Tramways." Anon. Ty. & Ry. World 8:437 (Nov. 2, 1899), 9:171 (May 10, 1900); Mun. J. 9:85,464 (Feb. 2, June 15, 1900); Elec. R. (Lond.) 47:103 (July 20, 1900); Elec. Eng. (Lond.) June 8, 1900. 8

"Water Softening at Southampton, England." Fuertes, James H. Engng. Rec. 39:203 (Feb. 4, 1899). 9

"**South Australia,** Water Supply in." Engineering (London) April 23, 1897. 10

"**South Carolina,** Local Government in." Ramage, B. J. J. H. Univ. Studies 1:12 (1883). 11

"**South Framingham, Mass.,** Sewage Disposal Works at." Engng. News 22:497 (1889).

"**Southport [Eng.],** The Tramways of." Mun. J. 9:557 (July 20, 1900).

South Shields, Eng.

"Civic South Shields." Mun. J. & London 8:106 (Jan. 26, 1899).

"Electricity Works, South Shields Corporation." Elec. R. 45:719 (Nov. 3, 1899).

"**Southwark [Eng.],** Problems of." Mun. J. 9:921 (Nov. 23, 1900).

Spain.

Contracts. "Contratos administrativos municipales." Gonzales de Junguitu, L. Madrid, Miguel Romero, 1891. 253 pp. 2 pes. 12

Courts. "Jueces municipal, El sumario y el juez de instrucción con un apêndice qui contiene algunas ideas sobre organizición de los Tribunales para los." Sainz y Gomez, Miguel. 4to. 4 pes. 13

——. "Manuel enciclopedico teorico-practico de los juzgados municipales." Abella, D. F. Madrid, 1883. 1 vol. 14

——. "Pratica de los juzgados municipales." Navarro y Reig, V. Valencia, Union Tipografica, 1894. 802 pp. 7 pes. 15

Elections. "Leyes electoral, municipal y provincial de 20 de agosto de 1870." Blas, D. Andrês. Madrid, 1877. 16

"Electric Tramways in Northern Spain." Lay, Julius G. Cons. Rep. 61:532 (Dec. 1899), Ty. & Ry. World 9:38 (Jan. 11, 1900). 17

Finance. "Local Government and Taxation in Spain." Prendergast, Moret Y. P. 337 "Local Government and Taxation," J. W. Probyn, editor. London & New York, Cassell, 1875. 5s. 18

Laws. "Constitucion y Leyes Municipal." Blas y Melendo, Andrês. 4 pes. 19

——. "Ley para la mejora, saneamiento y reforma o ensanche interior de las grandes poblaciones, sancionada por Su Majestad la Reina Regent el 18 de Marzo de 1895." Madrid, Jos. Perales. 1895. 34 pp. 50 pes. 20

Local and Municipal Government in Spain. Demombynes. Vol. I, pp. 426-466. See 2-11. 21

——. "Agenda de Administración municipal y general." Torrents y Monner, A. Barcelona, Bayer Hermanos. 1895. 184 pp. 2 pes. 22

——. "Die lokale Organisation." Torres Campos, Manuel, in II Theil, pp. 49-163, Vol. IV, 18 pp. Marquardsen. See 2-9. 23

——. "Direcho Municipal y Provincial." Blas y Melendo, Andrês. 1 vol. 2 pes. 24

——. "Manuel del Secretario de Ayuntamientos ó tratado teórico prâtico de administración municipal." Abella, F. Madrid, Riva, sexta edicion, 1892. 9 pes. 25

——. "Presupuestos municipales, manuel que contiene: Sección doctrinal, sección legislativa y sección prâtica." Madrid, Alvarez, 1891. 194 pp. 2 pes. 26

Pawnshops. "Montes de piedad y Cajas de ahorros." Ramirez, D. B. Anton. Madrid, 1876. 27

Sanitation. "Folleto sanitario profesional." Mesa, E., Medico Municipal de Villada. Salamanca, Fran. Nunez Izquierdo. 1891. 52 pp. 2 pes. 28

Spandau, Plans for the Sewage Purification Plant at. "Entwurf zur Kanalwasser-Reinigungs-Anlage für Spandau." Pfeffer, Walter. Gesund. Ing. Sept. 15, 1897. 29

Special Assessments. (See Assessments, Special, under **Finance**).

"**Spencer, Mass.,** Sewerage Purification by Intermittent Filtration at." Engng. News 39:190 (March 24, 1898). 31

Spitalfields, Eng. (See under **London**).

Springfield, Mass.

Lighting. "The Municipal Plant in Springfield." Bourke, John Walton. Elec. Eng. 11:129 (March 1, 1898); anon. City Gov't 6:2 (Jan. 1899); Prog. Age 17:261 (June 15, 1899). 32

"Municipal Condition of Springfield, Mass." Denison, Geo. A. p. 128, Pro. Third Natl. Conf. for Good City Gov't. 1896. See 6-18c. 33

——. "Springfield, Mass." Bryan, Clark W. Hrprs. Wkly. 35:73 (1891). 34

"**Staines [Eng.]**, Sewage Disposal at." Surveyor 17:504 (May 11, 1900).

State Administrative or Supervisory Boards, Relation of State and Municipality. (See under **Home Rule for Cities.**)

Statistics, Municipal. (See also under each topic.)

See also Austria, Birmingham, Boston, Dublin, Frankfort a M., Germany, Glasgow, Massachusetts, United Kingdom, United States, Wisconsin.

"Europe, Report on Municipal Statistical Offices in." Hartwell, Edward M. Boston City Document No. 94, 1897, 32 pp.; see also Mun. Aff. 1:525 (Sept. 1897). 35

"Municipal Statistics." James, C. C. Mun. World 9:20 (Feb. 1899); anon. Prog. Age 16:119 (March 15, 1898). 36

"Report of the Committee on Municipal Data." Pro. Am. Soc. Mun. Imp. (5th yr.) Pt II, p. 188 (Oct. 1898); Mun. Engng. 15:291 (Nov. 1898). 37

"Statistics of Eighty-five of the Largest Cities of the World." Population, number of houses and ratable value, length of streets and sewers, water supply, rainfall, amount of refuse and method of removing it, number of police, length of street railways, number of slaughter houses and management, street lighting, death rate, etc. Pro. of the Institution of Civil Eng. Vol. 76, 1884. 38

"Statistique Internationale des grandes Villes, Mouvement de la Population." (Vital statistics of 38 cities in Europe and America.) Körösi, Joseph. Budapest, M. Rath, 1876. 4to, 283 pp. 39

"Tabulation of Municipal Statistics, The." Engng. Rec. 40:460 (Oct. 14, 1899).

"Value and Use of Municipal Statistics." James, C. C. Mun. World 9:3 (Jan. 1899). 40

Stettin, Germany.

"Sewage Disposal, Stettin." Kickbusch, F. W. Cons. Rep. 47:237 (1895). 41

Street Railways. "Elektrische Strassenbahn Stettins." Ill. Zeitschr. für Klein- und Strassenbahnen, June 16, 1898. 42

"**Steubenville, Ohio,** Water System of." Fire & W. 23:74, 82 (Mar. 5, 12, 1898).

"**Stockholm** Sewage Disposal." O'Neil, Thos. B. Cons. Rep. 47:238 (1895). 43

Strassburg, Germany.

City Government. "Verwaltungsbericht der Stadt Strassburg i. E. für die Zeit von 1870 bis 1888-89." Buechel, Carl. Strassburg, 1895. 4to, 551 pp. "Von 1889-90 bis 1893-94." Strassburg, 1898. 4to, 354 pp. 44

History of Strassburg to 1681. "Verfassungs, Verwaltungs, und Wirthschaftsgeschichte der Stadt Strassburg bis 1681." Eheberg, Th. Strassburg, J. H. E. Heitz, 1899. 8vo, 771 pp. Cl., 1st vol., 15m. 45

Housing. "Die Arbeiterwohnungsfrage in Strassburg i. E." Weill, Friedrich, pp. 147-160, Hft. 30, Schr. d. Ver. f. Socialpolitik. 46

Improvement of Strassburg. "Die Stadterweiterung von Strassburg." Deutsche Bauz. pp. 343, 356, 411, 428, 516, 1878. 47

——. Proposed City Plan. "Entwurf zu einem Bebauungsplan für Strassburg." Orth, A. Leipzig, 1878. 48

Street Lighting. (See under **Lighting.**)

Streets, Street Building, Street Cleaning, Trees in City Streets. (See also **Garbage Disposal, Parks, Paving.**)

See also Aachen, Amsterdam, Baltimore, Berlin, Boston, Breslau, Brussels, Buffalo, Chicago, Cleveland, Cologne, Dresden, Frankfort, Geneva, Glasgow, Great Britain under United Kingdom, Hamburg, Hanover, Leeds, Lisbon, Liverpool, London, Madrid, Mainz, Manchester, Milwaukee, Munich, New York, Nottingham, Nuremburg, Oldenburg, Ostend, Paris, Pekin, Riga, Rome, St. Nazaire, San Francisco, Schwerin, Springfield, Strassburg, Szegedin, United Kingdom, United States, Vienna, Washington.

Assessment of Cost of Street Improvements. (See Special Assessments under **Finance.**)

"Beautiful Streets, The Commercial Value of." Howard, J. W. Engng. M. Dec. 1896. 49

——. "Influences of Beautiful Streets Upon Public Health." San Rec. April 16, 1897.

——. "The Positive Value of Quiet and Beautiful Streets." Howard, J. W. Engng. M. 12:924 (March 1897). 50

Cleaning, Street. Clarke, E. Pop. Sci. Mo. 38:748 (1891); Howard, J. W. Mun. Engng. 13:287 (Nov. 1897); Lovegrove, James. San. Rec. 23:476 (June 2, 1899); Waring, George E., Jr. City Govt. 3:117 (Oct. 1897). 51

——. "A New Street Cleaning and Disinfecting Method." Pub. Imp. 1:85 (July 1, 1899). 52

——. "Cleaning and Sewerage of Cities." Baumeister, R. Adapted from the German by J. M. Goodell. New York, Engng. News Pub. Co., 1891. 291 pp. $2.50. 53

——. "Cleansing of Great Cities." Ferris, G. T. Hrprs. Wkly. 35:33 (1891). 54

——. "Cost of Street Cleaning, The." Stutler, Warner. Pub. Imp. 2:200 (Mar. 1, 1900). 55

——. "Cost of Street Cleaning and Methods of Paying for Municipal Improvements, Street Cleaning and Sprinkling." Engng. News Sept. 29, 1892.

——. "Europe, Street Cleaning in." Leslie's Wkly. 80:54 (1895). 56

——. "European Cities, Observations on Street Cleaning Methods, in." Waring, George E., Jr. Mun. Aff. Supplement to June, 1898. 57

——. "Mechanical Cleansing of Cities." Mun. J. 9:760 (Sept. 28, 1900).

——. "Mechanical Power to Street Cleansing, The Application of." Smith, E. Shapnell. Pp. 56-63 in "Pro. of the Assn. of Cleansing Superintendents of Great Britain, Sept. 6-9, 1899." Rochdale, James Clegg, 1900. 8vo, 63 pp. 58

——. "Paving and Street Cleaning." Waring, Geo. E. Engng. M. Jan. 1897. 59

——. "Paving to Street Cleaning, Relations of Good." Waring, Geo. E. Engng. M. 12:781 (Feb. 1897). 60

——. "Städtisches Strassenwesen und Städtereinigung." Baumeister, R. In "Handbuch der Baukunde." Berlin, Toeche, 1890. 356 pp. 372 diagrams. 8m. 61

——. "Street Cleaning and the Disposal of a City's Wastes: Methods and Results and the Effect Upon Public Health, Public Morals and Municipal Prosperity." Waring, Geo. E., Jr. New York, Doubleday & McClure Co., 1898. 12mo, 230 pp. $1.25. 62

——. "Street Cleaning and Disposal of Refuse." Eng. & Buil. Rec. Nov. 29, 1890. p. 410. 63

——. "Street Cleaning and Its Effects." Waring, George E., Jr. New York, Doubleday & McClure Co., 1898. 8vo, 500 pp. $1.25. 64

——. "Street Cleaning and Watering." Jackson, J. Pp. 31-40 in "Pro. of the Assn. of Cleansing Superintendents of Great Britain, Sept. 6-9, 1899." Rochdale, James Clegg, 1900. 8vo, 63 pp. 65

——. "Studie zur Städte Reinigungs-Frage" Schultz, A. Berlin, Decker, 1881. 2m. 50 pf. 66

——. "Die Torfstree in ihrer Bedeutung für die Landwirtschaft u. d. Städtereinigung." Junger, O. Berlin, Parey, 1890. 8vo, 44 pp. 1m. 67

——. "Ueber Strassenwaschmaschinen." Wayl, Th. Gesund. Ing. Aug. 31, 1899. 68

"Clear Streets." Pumpelly, J. C. Municipal Program Leaflet No. 2, 1894. 7 pp. 5 cts. 69

"Cost of City Streets." Leslie's Wkly. 74:49 (1892). 70

"Curbing of Streets, The Proper." Andrews, Horace. Engng. Rec. 38:473 (Oct. 29, 1898), Mun. Engng. 15:278 (Nov. 1898), City Govt. 5:225 (Dec. 1898), Pro.

Streets, Etc.—*Continued.*

Am. Soc. Mun. Imp. pt. II, p. 130 (Oct. 1898). 71

"European Streets, Cross Sections of." Grimshaw, Robert. Mun. Engng. 12:139 (March 1897). 72

——. "Streets and Highways in Foreign Countries." Special Cons. Rep. 1891, 592 pp.

"Excavations in City Streets." Snyder, Geo. D. City Govt. 1:103 (1896). 73

"Grades, Street." Chase, Charles B. Mun. Engng. 16:357 (June, 1899); anon. Engng. Rec. 40:497 (Oct. 28, 1899). 74

History. "The Evolution of City Streets." Fish, Williston. St. Ry. R. 10:445 (Aug. 15, 1900). 75

Hygiene, Street. "Strassenhygiene in europaischen Städte." Sammelbericht der aus Anlass des 9 internationalen Knogresses f. Hygiene u. Demographie in Madrid, 1898. Hirschwald, A. 83 pp. 8vo. 2.40m. 76

"Inlets, Street." Wilcox, J. W. Mun. Engng. 13:195 (Oct. 1897). 77

"Names, Our Street." Crane, William H. Lippincott's, August, 1897. 78

"New Streets and Buildings." Pickering, J. S. Sanitarian 42:7 (Jan. 1899). 79

"Paving for Street Improvements, Method of." Brown, Charles Carroll. Mun. Engng. 12:67 (Feb. 1897); anon. Mun. Engng. 17:12 (July 1899). (See also Assessments under **Finance.**) 80

Planning of Cities. Harder, Julius F. Pub. Imp. 1:297 (Oct. 15, 1899); North, Edward P. Same 2:5 (Nov. 1, 1899); Post, George B. Same 2:26 (Nov. 15, 1899); anon. Builder 31:279. 81

——. "Anlage der Städtebebauungspläne." Wieck, B. Deutsche Bauz. p. 579, 1883; Wochbl. f. Arch. u. Ing. p. 490, 1883. 82

——. "Der Städtebau." Stübben, J. Handbuch der Ark. 4 Pt. 9 Vol. Darmstadt, Bergsträsser, 1890. 8vo. 561 pp. Cloth, $12.00. 83

——. "Der Städte-Bau nach seinen künstlerischen Grundsätzen." Sitte, C. Wien, 1889. 84

——. "Grundriss einer schönen Stadt in Absicht ihrer Anlage und Einrichtung." Willebrand, J. P. Hamburg and Leipzig, 1775. 85

——. "Projet d'une Capitale Modèle." Mathieu, A. Paris, 1881. 86

——. "Stadterweiterungen in Technischer, Baupolizeilicher und Wirthschaftlicher Beziehung." Baumeister, R. Berlin, 1876. 87

——. "Ueber Städteanlagen und Stadtbauten." Eitelberger, R. Wien, 1858. 88

——. "Ueber Stadterweiterungen." Hecht, E. Wochbl. f. Baukunde, pp. 32, 42, 1887. 89

——. "Ueber Strassenverhältnisse und Bebauungsart grösserer Städte." Turner, M. A. Romberg's Zeitschr. f. Pract. Bauk. pp. 305, 428, 451, 1880. 90

"Reports, Proposed Forms of Street Construction." Pro. Am. Soc. Mun. Imp. (5th yr.) Pt. II, p. 201 (Oct. 1898).

"Residence Streets." Simonds, O. C. Park & Cem. 7:179, 244, 264 (Oct. 1897, Jan., Feb., 1898), anon. Park & Cem. 8:10, 25, 42, 64, 103 (March, April, May, June, Aug., 1898). 91

"Scavenging, Street." Weaver, William. London 6:644 (July 29, 1897). 92

"Streets and Bridges." Carõe, D. Builder 78:615 (June 23, 1900). 93

Streets, City. "Voies Publics: Principes de Distribution des Voies de Circulation dans les Grandes Villes." Revue Gén. de l'Arch. p. 165, 1862. 94

Trees in City Streets. Lewis, John C. Pub. Imp. 1:167 (Sept. 1, 1899), Park & Cem. 9:137 (Sept. 1899); Loring, Charles M. Park & Outdoor Art Assn. p. 139, 1897-8; Mitchell, Cornelius B. Mun. Aff. 3:691 (Dec. 1898); anon. Park & Cem. 8:176 (Nov. 1898), 9:32 (April 1899). 95

——. Trees on City Streets. pp. 439-467, J. Stübben's "Städtebau." Darmstadt, Bergsträsser, 1890. 32m. 96

"Underground Construction in Streets." (Editorial.) Mun. Engng. 13:359 (Dec. 1897).

"Walks, Specifications for Cement." Mun. Engng. 13:140 (Sept. 1897). 97

"Watering, Street." Maxwell, William H. San. Rec. 20:222 (Aug. 27, 1897), 20:277 (Sept. 10, 1897). 98

——. "Salt Water for Sprinkling Streets and Flushing Sewers." Grant, Joseph D. Mchts. Assoc. Rev. Vol. 2, No. 23, p. 1 (July, 1898). 99

——. (See also Cleaning, Street, above.)

Stuttgart Housing. "Arbeiter-Kolonien in Mülhausen, Stuttgart u. Leinhausen." Schwering, L. Deutsche Baus. p. 548, 1884. 100

Suburbs.

"Annexations, Suburban." Weber, A. F. No. Am. 166:612 (May, 1898). 1

"Evils of Our Wooden Suburbs, The." Sturgis, R. Clipston. New Eng. M. 18:739 (Aug. 1898). 2

"The Surburbs and the Cities." Bradford, Amory H. Open Church 2:351 (Oct. 1898). 3

Subways for Pipes and Wires. (See **Conduits.**)

Suffrage. (See under **Elections.**)

Sunderland, Eng. "Tramways, Sunderland Corporation." Ty. & Ry. World 8:392 (Oct. 5, 1899, 9:433 Sept. 6, 1900); Mun. J. 9:637 (Aug. 17, 1900). 4

"**Superior [Wis.].**" In article "Capitals of the Northwest." Harper's Mo. 84:576 (1892).

Supervisory Boards for Cities, State. (See under **Home Rule for Cities.**)

Suresnes, Municipal Buildings of. "Les Nouveaux Edifices Communaux de la Ville de Suresnes." La Revue Technique Oct. 25, 1897. 5

"**Sutton, England,** The Bacterial Treatment of Sewage at." Engng. Rec. 41:79 (Jan. 27, 1900).

Swansea, Wales. "Tramway, Swansea Constitution Hill." Ty. & Ry. World 8:433 (Nov. 2, 1899); Elec. Eng. (Lond.) 32:6 (July 6, 1900). 6

Sweating. (See under **Labor and its Relation to the Municipality.**)

Sweden.

Local and Municipal Government in Sweden. Demombynes, Vol. I, pp. 114-36. See 2-11. 7

Telephones in Sweden. "Das Telephonwesen in Schweden." Hemming, A. Jr. Nat. Stat. 17:245 (2 Heft, 1899); Engng. 68:830 (Dec. 29, 1899); Elec. R. 36:62 (Jan. 17, 1900); Elec. W. and E. 35:137 (Jan. 27, 1900). 8

Switzerland.

Housing. "Die Ergebnisse der Schweizerischen Wohnungsenquêten." Hofmann, Emil. Ar. Soz. Gesetz. u. Stat. 15:684 (1900). 9

——. "Die Arbeiterverhältnisse und Fabrikeinrichtungen in der Schweiz." Böhmert, Victor. Zurich, Schmidt, 1873. 2 vol. 8vo, 16m. 10

"Legislation in Switzerland, Direct." Sullivan, J. W. Dir. Leg. Rec., Sept. 1894. Reprinted and brought down to date, p. 203, Senate Document, No. 340, 55th Congress, 2d session, 1898; Waurin, Louis. Progressive Review (English), July, 1897; abstracted, p. 250, Senate Document, No. 340. 11

Lighting. "Die Entwickelung der Schweizerischen Gaswerke in den letzten zwanzig Jahren." Schweiz. Bau., Dec. 29, 1900. 12

"Pavements in Switzerland." Gifford, George. Cons. Rep. 64:59 (Sept. 1900). 13

"Referendum in Switzerland." Deploige, Simon. Translated by C. P. Trevelyan. London, Longmans, 1898. 8vo, 384 pp. 7s. 6d. 14

——. "Government and Parties in Continental Europe." P. 238, Ch. 12. Lowell, A. L. Boston, Houghton, M. & Co., 1897. 2 vol. 8vo. $5. 15

——. "The Rerefendum in Switzerland." Curti, Th. Revue Pol. et Parl. Aug. 1897; Droz, Numa. Contemp. 67:328 (March, 1895). 16

Sanitation. "Systematische Uebersicht der Gesetze betreffend das öffentliche Gesundheitswesen in der Schweiz." Schmid, F. Bern, Department d'Innern, 1892. 2m. 17

Savings Banks. "Les Caisses d'Epargne de la Suisse: Histoire d' un Siècle, 1795-1895." Fatio, Guillaume. Bern, Staempfli & Co., 1896. 4to, 62 pp. 18

Taxation. "Progressive Taxation as levied in Switzerland, cantons Basel-Stadt,

Switzerland—*Continued.*

de Vaud and Uri." Palgrave, R. H. T. Journal of the London Statistical Society 51:225 (1888). 19

"Unemployment in Switzerland, Insurance Against." Bellour, Maurice. Bulletin du Congrès International des accidents du travail, etc. Pp. 507-510 (1895); Hofmann, Emil. Ar. Soz. Gesetz, Stat. 8:226-239 (1895); Lange, E. Schweiz, Bl. 1:383 (1894); Micheli, Horace. Bulletin du Congrès, etc. 7:552-607 (1896); Musée Social, Serie B., Circulaires No. 2 and 5, Aug. 31 and Nov. 29, 1896. 20

——. "The Problem of the Unemployed." Ch. III, p. 131. "Social Switzerland." Dawson, William Harbutt. London, Chapman & Hall, 1897. 8vo, 301 pp. 6s. (Poor Law Agencies, Ch. IV, p. 201; Control of Drink Traffic, Ch. VI, p. 277). 21

Sydney, N. S. W.

"City of the Empire, A: Sydney." Dolman, Fred. Idler Jan. 1899. 22

"Greater Sydney Conference, Minutes of the Proceedings of the." Sydney, Turner & Henderson, 1900. 4to, 37 pp. 23

"Pavements, Hardwood, in Sydney, N. S. W." Richards, R. W. Engng. News March 18, 1897, Indian and Eastern Engineer (Calcutta), April 17, 1897. 24

Street Railways. "Railway System of Sydney, N. S. W." St. Ry. J. 13:661, 14:193 (Oct. 1897, April, 1898); Elwell P. B. St. Ry. J. 14:134 (March, 1898). 25

Syracuse, N. Y.

"Building Operations, Statistics of: Buffalo, Rochester and Syracuse." B. Labor Stat. New York 1:170 (Dec. 1899).

"City Hall Ring, Syracuse." City Govt. 8:9 (Jan. 1897).

"Garbage Disposal Works." Engng. News 44:247 (Oct. 11, 1900). 26

History, Description and Statistics of Syracuse, N. Y. in 1880. Census. See 1-7. 27

"Street Railway System of Syracuse." St. Ry. J. 13:129 (March, 1897). 28

Water Supply. Hamilton, James H. Mun. Aff. 4:60 (March, 1900); Hill, William R. Fire & W. 22:363 (Oct. 2, 1897), 26:301 (Sept. 9, 1899), City Govt. 6:103 (May, 1899), 7:56 (Sept. 1899), Pub. Imp. 1:23, 277 (May 15, Oct. 1, 1899); Engng. Rec. Dec. 1, 1894, 39:566 (May 20, 1899); Engng. News Dec. 13, 1894; Trans. Am. Soc. Civil Eng. 34:23 (1895). 29

Szegedin, Hungary, Reconstruction of. "Der Wiederaufbau der Stadt Szegedin." Stübben, J. Deutsche Bauz. P. 3, 1889. 30

Tacoma, Wash.

"City of Tacoma." Howard, William Willard. Hrprs. Wkly. 35:469 (1891). 31

——. "Tacoma—Past, Present and Future." Rothery, S. E. Overland 31:244 (March, 1898). 32

"Lighting Litigation, Tacoma." Prog. Age 17:113 (March 15, 1899).

Tammany Hall. (See under **New York**).

"**Tampico [Fla.]**, Water Works and Sewerage in." Pressly, Neill E. Cons. Rep. 61:563 (Dec. 1899). 33

Tananarivo, Madagascar, and its Municipal Services. "Tananarivo et ses Services Municipaux." Pérès, H. Revue Municipale 3:1630 (Oct. 14, 1899). 34

"**Tarrytown, N. Y.**, History of." Mabie, H. W. See 1-4b. 35

Taxation, Municipal, Taxation of Franchises, etc. (See under **Finance.**)

Teachers' Pensions. (See under **Schools**).

Telephone Systems. (See also **Municipal Control**).

See also Amsterdam, Canada, Cleveland, Detroit, Glasgow, Manchester, New York City, Shanghai, Sweden, United Kingdom, United States.

"Cost of Constructing, Operating and Maintaining a Telephone Plant for 2,600 Subscribers." Elec. Engineering (Chicago), May 15, 1897. 36

"Improvements in Telephone Systems." Miller, Kempster B. Elec. W. & E. 33:502 (April 22, 1899). 37

Telephone Systems—*Continued.*

"Independent and Industrial Telephone Systems, The Merits of." Miller, Kempster B. Engng. M. 18:550 (Jan. 1900). 38

Municipal Control, Ownership, Regulation of Telephones. (See under **Municipal Control, Municipal Ownership**).

"Popular Telephones." Mountain, A. B. Mun. J. 9:37 (Jan. 12, 1900). 39

"Rates in Cities, Telephones." City Govt. 6:81 (April, 1899). 40

"Telephones." Gavey, John. J. Soc. Arts 47:463 (April 14, 1899). 41

Tenement Houses. (See **Housing of the Working Classes.**)

Terre Haute, Ind. "Street Railways. High-handed Treatment of a Local Company." Elec. Eng., 24:411 (Oct. 28, 1897). 42

Texas, Lighting in. "Recent Developments in Texas." Miller, Thomas D. Prog. Age 16:266 (June 1, 1898); Am. Gas Light J. 68:934 (June 13, 1898). 43

Theatres and Opera Houses, Municipal.

See also Berlin, Germany, London, Paris.

"A Neglected Principle in Civic Reform." (Municipal Theatres). Hamilton, James H. Am. J. Sociol. 5:746 (May, 1900). 44

"Municipal Opera." Mun. Rec. & Ad. 3:670 (July 15, 1898).

——. "A Municipal Opera House." London 7:441 (July 14, 1898). 45

"Municipal Theatres." Mun. Rec. & Ad. 3:669 (July 15, 1898).

——. "Spese facoltative Municipali, Sovvenzione al Teatro d'Opera e Scuola di Ballo." Arnaudon, G. G. Segonda Ediz. Torino, Camilla e Bertolero, 1899. 54 pp. 46

"**Thebes;** Her Ruins and Her Memories." Hunter, Dunlany. Cosmopol. 30:3 (Nov. 1900). 47

"**Tientsin,** The City of." Ragsdale, James W. Cons. Rep. 58:550 (Dec. 1898). 48

Toledo, O.

"City of Toledo." Howard, William Willard. Hrprs. Wkly. 35:230 (1891). 49

"Election, The Toledo." Ghent, W. J. Ind. 51:1022 (April 13, 1899). 50

Gas Supply, Municipal. "Traveler." Am. Gas Light J. 69:458 (Sept. 26, 1898); Prog. Age 16:477 (Oct. 15, 1898); Jones, Samuel M. City Govt. 8:63 (March, 1900), City Govt. 9:34 (Aug. 1900). 51

History, Description and Statistics of Toledo, O., in 1880. Census. See 1-7. 52

Street Railways. St. Ry. J. 13:9 (Jan. 1897); Harding, Burcham. St. Ry. J. 16:109 (Feb. 3, 1900); Smith, W. S. Elec. World 31:491 (April 23, 1898). 53

"Water Works of Toledo, O." Fire & W. April 11, 1896.

"**Toledo,** The Imperial City of Spain." Bonsal, Stephen. Cent. 56:163 (June, 1898). 54

Topeka, Kansas.

History, Description and Statistics of Topeka, Kas., in 1880. Census. See 1-7. 55

"Sanitation of Topeka." Barnes, William H. Pub. Imp. 1:117 (Aug. 1, 1899). 56

Toronto, Canada.

Government and General References.

"Municipal Toronto." Gregory, W. D. Outlook 58:351 (Feb. 5, 1898). 57

"The Municipal Act, Consolidated, Condensed, Classified." (Toronto, Can.) Willson, Arthur L. Toronto, Carswell Co., 1896. 8vo, 131 pp. 58

"Toronto." Hughes, J. L. New Eng. M. 23:305 (Nov. 1900). 59

"Toronto as a Municipal Object Lesson." Shaw, Albert. R. of Rs. 10:165 (1894). 60

"Buildings, the New Toronto Municipal." Can. Arch. Dec. 1897.

"Garbage Disposal at Toronto, Ontario." Eng. Rec. 40:479 (Oct. 21, 1899). 61

Toronto, Canada—*Continued.*

——. "An Outline of the System of Garbage Collection in the City of Toronto." Jones, John. Mun. Engng. 19:392 (Dec. 1900). 62

"Sanitary Appliances." (Objections to sanitary rules in force in Toronto, with reasons). Watson, W. M. Can. Eng. (Montreal), April, 1897. 63

Sewage Disposal in Toronto. Anon. Mun. World 8:185 (Dec. 1898); Horetsky, C. G. Can. Eng. 6:249 (Jan. 1899). 64

Street Railways, Toronto's. Parsons, Frank. New Time 2:113 (Feb. 1898); Sinclair, A. H. Q. J. Econ. 6:98 (1891); City Govt. 1:37 (1896); Boston, Leaflet issued by the Citizens' Committee, 1897, 2 pp; Ty. & Ry. World 8:386 (Oct. 5, 1899). 65

——. "Sunday Cars in Toronto." Withrow, W. H. Ind. 49:678 (May 27, 1897). 66

"Water Supply of Toronto." Fire & W. March 27, 1897.

Torquay, Eng.

"Refuse Destructor Trials, Torquay, Eng." Garrett, Henry A. Engng. Rec. 40:318 (Sept. 2, 1899). 67

"Water Works, The Torquay." Ingham, W. J. Gas Lgt. 70:324 (Aug. 10, 1897). 68

Tours, France.

Housing. "Cité Ouvrière de la Maison Mame de Tours." Racine. Moniteur des Arch., p. 114, 1876. 69

Street Railways. "Les Tramways de Tours." Montpelier, J. A. L'Electricien April 29, 1899. 70

Track Elevation. (See under **Grade Crossings**).

Trading, Municipal. (See under **Municipal Control, Municipal Ownership**).

Toynbee, Arnold; Toynbee Hall. (See Settlements, under **London**).

Tramps in Cities. (See under **Unemployed,** also Vagrancy under **Charities**).

Transit Facilities, Street Railways, Transportation Problem in Cities. (See also **Municipal Control**).

See also Aberdeen, Africa, Alexandria, Algiers, Amiens, Argentine, Austria, Baltimore, Basle, Batavia (Java), Belfast, Belgium, Bergen, Berlin, Binghamton (N. Y.), Birmingham, Bolton, Bombay, Boston, Bradford, Breslau, Brighton, Bristol, Brooklyn under New York, Brussels, Budapest, Buenos Ayres, Buffalo, Cairo, Cardiff (Wales), Carlisle (Eng.), Chicago, Cincinnati, Cleveland, Columbus, Connecticut, Cork, Coventry, Dayton, Detroit, Dover (Eng.), Dublin, Edinburgh, England under United Kingdom, Europe, Fall River, Florence, France, Geneva, Georgetown (Demarara), Georgia, Germany, Glasgow, Gothenburg, Great Britain under United Kingdom, Greece, Halifax, Hamburg, Hanover, Hartford, Havana, Holland, Huddersfield, Hull, Indiana, Indianapolis, Ithaca, Italy, Japan, Leeds, Lemberg, Liverpool, London, Los Angeles, Lyons, Madras, Madrid, Manchester Massachusetts, Melbourne, Michigan, Milan, Milwaukee, Minneapolis, Monaco, Moscow, Neuchâtel, Newcastle, New England, New Orleans, New York, Niagara, Nice (Italy), Norwich (Eng.), Nottingham (Eng.), Paris, Pennsylvania, Perth, Philadelphia, Pittsburg, Plymouth, Portland (Me.), Portland (Ore.), Quebec, Rio de Janeiro, Russia, St. Louis, St. Paul, St. Petersburg, Salford, San Francisco, Seattle, Seoul, Shanghai, Sheffield, Siam, South America, Southampton, Southport, Spain, Stettin, Sunderland, Swansea, Sydney, Syracuse, Terre Haute, Toledo, Toronto, Tours, United Kingdom, United States, Vera Cruz, Versailles, Vienna, Washington, West Ham, Willesden, Zurich.

"Accidents, Street Railway." Robinson, Henry A. St. Ry. J. 14:86 (Feb. 1898); Mun. Rec. & Ad. 2:609 (June 15, 1898). 71

——. "A Chapter of Accidents." Clark, Wm. J. St. Ry. J. 13:667 (Oct. 1897). 72

——. "The Best Method of Settling Damage Cases, and the Prevention of Accidents by the Use of Fenders or Otherwise." Hield, Willard J. St. Ry. J. 13:770 (Nov. 1897), St. Ry. R. 7:750 (Nov. 15, 1897). 73

——. "The Organization of a Claim Department." Uppercu, J. W. St. Ry. J. 16:124 (Feb. 3, 1900). 74

Transit Facilities—*Continued.*

" Accounts, An Ideal System of Street Railway." Kittredge, A. O. St. Ry. Jour. 15:30 (Jan. 1899). 75

——. " Blanks and Forms, Street Railway." St. Ry. J. 15:32 (Jan. 1899).

——. " Bookkeeping, Central Station, and suggested forms with an appendix for street railways." Foster, Horatio A. New York, W. J. Johnston & Co., 1896. 139 pp. $2.50. 76

——. " Departmental Accounts." Wilson, H. L. St. Ry. J. 16:1086 (Nov. 3, 1900), St. Ry. R. 10:676 (Nov. 15, 1900). 77

——. " Notes on Street Railway Accounting." St. Ry. J. 14:101 (Feb. 1898).

——. Standard System of Accounts. Calderwood, J. F. St. Ry. R. 9:243 (April 15, 1899); Duffy, C. N. St. Ry. J. 16:1083 (Nov. 3, 1900); Kittredge, A. O. St. Ry. J. 14:99, 796 (Feb. Dec. 1898); anon. St. Ry. J. 13:771 (Nov. 1897), 16:1085 (Nov. 3, 1900). 78

——. " Time-Keeping, Pay Roll and Method of Paying." Henry, Frank R. St. Ry. R. 7:763 (Nov. 15, 1897). 79

——. " Voucher System of Book-keeping." Kittredge, A. O. St. Ry. J. 14:731 (Nov. 1898). 80

——. " What Does the General Manager Want to Know from the Accounting Department?" Beggs, John I. St. Ry. J. 16:1081 (Nov. 3, 1900). 81

" Advertising in Street Cars." Kissam, George. St. Ry. R. 10:615 (Oct. 15, 1900). 82

——. " Is Advertising as Profitable to Street Railways as to Steam Railways?" Derrah, Robert H. St. Ry. R. 10:33 (Jan. 15, 1900). 83

" Amusement Business, To What Extent Should Street Railways Engage in the." Holmes, Walton H. St. Ry. Rev. 8:622 (Sept. 15, 1898), Mun. Rec. & Ad. 3:767 (Sept. 1898), St. Ry. J. 14:641 (Oct. 1898). 84

Bookkeeping. (See Accounting above).

" Cable Railways of the World." (General data of 55 lines). Engng. News Oct. 11, 1895. 85

——. " Cable Motors and the Underground Trolley." Vreeland, Herbert H. Mun. Rec. & Ad. 2:592 (June 15, 1898). 86

——. " Electric and Cable Railways, Working Expenses of." Ty. & Ry. World 9:138 (April 5, 1900). 87

——. " Working Expenses of Electric and Cable Railways." Ry. World 8:132 (April 13, 1899).

Cars. " Building, Street Car." Davis, Charles Henry. St. Ry. J. 16:250 (March 3, 1900). 88

——. " Car Service and its Practical Application." McCormack, Ira A. Ty. & Ry. World 9:31 (Jan. 11, 1900). 89

——. " Car Trucks." Heulings, W. H., Jr. St. Ry. R. 9:742 (Nov. 15, 1899). 91

——. " Cleaning of Street Cars, The Systematic." McAdoo, M. R. St. Ry. Jour. 14:363 (July, 1898.) 92

——. " Comparative Earnings and Economy of Operation between Single and Double Truck Cars for City Use." McCullough, Richard. Elec. Eng. 26:251 (Sept. 15, 1898), Engng. News 40:170 (Sept. 15, 1898), St. Ry. J. 14:627 (Oct. 1898). 93

——. " Electric Cars, Construction of." (Serial.) Mun. Rec. & Ad. 2:95 to 343 (Jan. 1 to Feb. 26, 1898). 94

——. " Inspection and Testing of Motors and Car Equipments by Street Railway Companies." Perkins, F. B. St. Ry. J. 14:630 (Oct. 1898). 95

——. Receipts and Car Efficiency, "Beziehungen zwischen Einnahmen und Wagen-Kilometerleistung bei Strassenbahnbetrieb." Mattersdorff, W. Elek. Zeit. Dec. 21, 1899. 96

——. " Tramway and Light Railway Car Trucks." Ty. & Ry. W. 9:78 (Feb. 8, 1900).

" Charter Route, The Right of a Street Railway to Deviate from its." Mun. Rec. & Ad. Vol. 1, No. 25, p. 11 (Nov. 27, 1897). 97

" Compensation for Special Use of Public Rights-of-Way, Property Owners' Rights to." Public Policy 3:339 (Dec. 1, 1900).

" Competition and Combination." Mun. Rec. & Ad. Vol. 1, No. 22, p. 6 (Nov. 6, 1897).

" Compressed Air for Street Railway Service." Elec. Rev. (Landon) April 7, 1897. 98

Transit Facilities—*Continued.*

——. "Compressed Air for City and Suburban Traction." Haupt, Hermann. J. Frankl. Inst. 143:13, 119 (Jan. and Feb.1897). 99

——. "Motors, Compressed Air." St. Ry. J. 13:487 (Aug. 1897).

——. "Reports of Experience with Compressed Air Motors on Elevated and Street Railways." Haupt, Hermann; Emack, Edward G.; Black, W. M.; and McFarland, W. A. Engng. News 38:228 (Oct. 7, 1897). 100

——. "The Comparative Economy of Compressed Air and Electric Traction." Engng. News 38:233 (Oct. 7, 1897). 1

"Congress, International Tramways." Ty. & Ry. World 9:505 (Oct. 11, 1900).

——. "Die Strassen- und Kleinbahnen auf der Pariser Weltaustellung." Zeitschr. f. Klein u. Strassenbahnen Aug. 1, 1900. 2

"Consolidation, Street Railway." Anon. Outlook 64:712 (March 31, 1900); St. Ry. J. 16:823 (Sept. 1, 1900).

——. "Consolidation of Street Railways and its Effect upon the Public." Holmes, Daniel B. St. Ry. J. 16:1073 (Nov. 3, 1900), Mun. & Ry. Rec. 7:156 (Nov. 15, 1900), St. Ry. R. 10:644 (Nov. 15, 1900). 3

"Contagion in Street Cars, Danger of." Borland, E. B. Sanitarian Dec. 1896. 4

"Cost of Construction and Operation of Street Railways." Statistics from Berlin, Brussels, Budapest, Blackpool, Dresden and Milan. St. Ry. R. 7:395 (June, 15, 1897). 5

——. "Building, Cost of Street Railway." Harris, T. William. Engng. M. 5:206 (1893). 6

——. "Cost per Care-mile vs. Cost per Passenger. A Symposium." St. Ry. R. 7:287 (May 15, 1897). 7

——. "Running Street Railways, The Cost of." Parsons, Frank. New Time 2:44 (Jan. 1898). 8

——. (See under Electric Railways below.)

"Courts and Street Railways, The." St. Ry. Jour. 14:102 (Feb. 1898).

"Crowded Street Cars." Public Policy 2:346 (June 2, 1900).

——. "The Question of Standing Room in Tramcars." Ty. & Ry. World 9:195 (May 10, 1900).

"Depreciation of Plant, and its Relation to General Expense, The." Norris, H. M. Engng. M. 17:76 (April, 1899). 9

"Earning Power of Street Railway Properties, How to Determine the True Net." Higgins, Edward E. St. Ry. J. 16:246 (March 3, 1900), Public Policy 2:284 (May 5, 1900). 10

Electric Street Railways, General Articles on. Bancroft, C. F. Elec. R. 37:436 (Oct. 24, 1900), St. Ry. J. 16:1075 (Nov. 3, 1900), St. Ry. R. 10:645 (Nov. 15, 1900); Carr, C. E. A. St. Ry. R. 7:396 (June 15, 1897); Conaty, G. Ry. W. 8:110 (March, 1899); Davis, C. H. Eng. M. 12:942 (March, 1897); Dawson, Philip. J. Soc. Arts 47:399 (March 24, 1899), Ry. World 8:152 (April 13, 1899), St. Ry. J. 15:316 (May, 1899), St. Ry. R. 9:345 (May 15, 1899); Garton, W. R. St. Ry. R. 8:224 (April 15, 1898); Gerry, M. H. Elec. W. 30:124 (July 31, 1897), St. Ry. R. 7:518 (Aug. 15, 1897); Marshall, Cloyd. Elec W. 30:760 (Dec. 25, 1987), Elec. R. 31:314 (Dec. 29, 1897); Parshall, H. F. St. Ry. J. 15:178 (March, 1899), Ry. W. 8:71 (Feb. 9, 1899); Perry, Nelson W. Cassiers' (April, 1897); Prindle, H. B. Engng. M. 1:671 (1891); Sprague, Frank J. Forum, 12:120 (1891), Engng. M. 14:553 (Jan. 1898); Thompson, Silvanus P. St. Ry. R. 10:20 (Jan. 15, 1900); Walsh, Gertrude Ethelbert. Chaut. 24:580 (Feb. 1897); anon. Eng. 87:216 (March 3, 1899); Local Govt. J. 27:44, 46 (Jan. 15, 1898); London 7:681 (Oct. 27, 1898); Mun. Rec. & Ad. 3:649 (July 15, 1898); St. Ry. R. 8:484, 732, 878 (July 15, Oct. 15, Dec. 15, 1898); Sur. 17:4, 146, 264, 344, 428, 536, 620 (Jan. 5, Feb. 9, March 9, 30, April 20, May 18, June 8, 1900), same 18:168, 276, 508 (Aug. 10, Sept. 7, Nov. 2, 1900); Ty. & Ry. W. 8:459 (Nov. 2, 1899), same 9:20 (Jan. 11, 1900). 11

——. "Accumulator Traction on the Continent, Electric." Ry. World 7:78 (Mar. 1898). 12

——. "Aldridge Electric Tramway System, The." Ry. World 6:342 (Nov. 1897).

——. "Anderson's Surface Contact Tramway System." Ty. & Ry. World 8:440 Nov. 2, 1899).

——. "Builders, Advice to, of Electric Railways." Chance, G. Whitefield. Western Electrician, Chicago, June 5, 1897. 13

Transit Facilities—*Continued.*

——. "Building an Electric Railway." Serrell, Lemuel W. Cassiers' 16:303 (Aug. 1899). 14

——. "Claim and Operating Departments of Electric Railways, Relationship between." Day, Richard W. Mun. Rec. & Ad. Vol. 1, No. 13, p. 18 (Sept. 4, 1897), St. Ry. R. 7:589 (Sept. 15, 1897). 15

——. "Conduits and Cables, Electrical." Dow, Alex. Engng. News 38:419 (Dec. 30, 1897). 16

——. Conduit Roads, Electric. Adams, Alton D. Mun. Engng. 18:102 (Feb. 1900); Cudworth, F. G. St. Ry. J. 16:1130 (Nov. 17, 1900); Pearson, F. S. Cassiers' 16:257 (Aug. 1899). 17

——. "Conduit vs. Trolley." Robinson, J. Clifton. Elec. Eng. (Lond.) 32:195 (Aug. 10, 1900); anon. Ry. World 7:415 (Dec. 8, 1898). 18

——. "Construction and Maintenance of Electric Lines, Modern." Brophy, William. Elec. Eng. 24:328 (Oct. 7, 1897), Elec. R. 31:190 (Oct. 20, 1897). 19

——. "Construction and Operation of Electric Street Railways, Some of the Difficulties Existing in the." Knox, George W. Elec. World 30:488 (Oct. 23, 1897), Elec. Eng. 24:418 (Oct. 28, 1897), Elec. R. 31:212, 226 (Nov. 3, 10, 1897); St. Ry. J. 13:755 (Nov. 1897), St. Ry. R. 7:723 (Nov. 15, 1897). 20

——. "Cost and Advantage of Electrical Equipment for Railways." Henry, John C. Elec. Eng. 23:586 (June 2, 1897). 21

——. "Cost of Electric Power for Street Railways at the Switchboard—Steam and Water Power." Conant, R. W. Elec. Eng. 26:307 (Sept. 29, 1898), Elec. Rev. 33:202, 218, 236 (Sept. 28, Oct. 5, 12, 1898); Elec. World 32:313 (Sept. 24, 1898), Eng. News 40:181 (Sept. 22, 1898), Engng. Rec. 38:386 (Oct. 1, 1898), Mun. Rec. & Ad. 3:772 (Sept. 1898), Railroad Gaz. 30:704, 722 (Sept. 30, Oct. 7, 1898), St. Ry. J. 14:621 (Oct. 1898), St. Ry. R. 8:631 (Sept. 15, 1898). 22

——. "Cost of Operating Electric Tramways." Surveyor 18:624 (Nov. 30, 1900).

——. "Current Distribution, Systems of." van Vloten. Ty. & Ry. World 9:516 (Oct. 11, 1900). 23

——. "Early Electric Railway Installations, Some." St. Ry. R. 10:322 (June 15, 1900).

——. "Electric Railways and Tramways." Dawson, Phillip. New York, Wiley & Sons, 1897. 8vo, 705 pp. $12.50. 24

——. Europe, Electric Street Railways in. Anon. St. Ry. Jour. 13:189 (April, 1897); J. Frank. Inst. 144:156 (Aug. 1897); Elec. W. 30:736 (Dec. 18, 1897); Elec. R. 33:164 (Sept. 14, 1898). 25

——. "Electric Railway Practice in Europe." (Descriptions of Street Railway Systems of Budapesth, Belgrade, Vienna, Munich, Paris, Odessa, Bristol and light railways of Belgium. Also describes street railway systems of Buenos Ayres, Dunedin, Sydney and Siam.) St. Ry. J. 13:383 (July, 1897). 26

——. "Statistik der elektrischen Bahnen in Europa." Die Elektrizitat, May 22, 1897. 27

——. "Finance, Electric Railway." Lawson, W. R. Bank. M. (London) 65:577 (May, 1898). 28

——. "Franchises, Electric Railway." Mun. World 9:195 (Dec. 1899).

——. "Freight and Express Matter on Electric Railways, Hauling." St. Ry. R. 10:199 (April 15, 1900). 29

——. "Ground Current of Electric Railways." Herrick, Albert B. Engng. M. 15:451 (June, 1898). 30

——. "Grounds on Underground Trolley Systems." St. Ry. J. 16:344 (April 7, 1900).

——. "Inspection of Street Car Eqiupments, The Electrical." Herrick, Albert B. St. Ry. J. 15:179 (March, 1899). 31

——. "Insurance Companies, Electric Traction and." Ty. & Ry. World 9:44 (Jan. 11, 1900.

——. "Land Values in Cities, The Influence of Electric Railroads on the Distribution of Population and." Knight, Frank E. Mun. Rec. & Ad. 2:474 (April 15, 1898). 32

——. Modern Electric Tramways. "Neuere Systeme elektrischer Bahnen." Elektrotechnische Zeitschr. (Berlin), March 25, 1897. 33

——. "Power and Equipment of Electric Railways." Hunt, H. H., and Stearns, C. K. J. Assoc. Engng. Soc. 22:11 (Jan. 1899). 34

Transit Facilities—*Continued.*

——. "Power Transmission, Practical Limitations of Electric." Bell, Louis. Cassier's 17:113 (Dec. 1899). 35

——. "Power Schemes on Electric Railways, The Influence of the." Ty. & Ry. World 9:140 (April 5, 1900). 36

——. Progress of Electric Traction. Anon. Ry. World 7:113 (April 7, 1898); Houston, Edwin J. Cassier's 17:145 (Dec. 1899). 37

——. "Development, A Decade of Electric Railway." Clark, W. J. Elec. World 30:335 (Sept. 18, 1897), Elec. Eng. 24:271 (Sept. 23, 1897), Railroad Gaz. 29:688 (Oct. 1, 1897), St. Ry. J. 13:636 (Oct. 1897). 38

——. "Recent Progress in Electric Railways." (A summary of current periodical literature relating to electric railway construction, operation, systems, machinery, appliances, etc.) Hering, Carl. New York, W. J. Johnston Co., 1892. 389 pp. 39

——. "Repair Shops, Electric Street Railway." Dunning, R. Elec. Eng. 24:304 (Sept. 30, 1897), Elec. R. 31:166 (Oct. 6, 1897). 40

——. "Small Electric Railways be Operated at a Profit, Can?" Cahoon, James Blake. St. Ry. J. 17:708 (Aug. 4, 1900), 16:812 (Sept. 1, 1900). 41

——. "Stations, The Development of Electric." Adams, Alton D. Cassier's 17:91 (Dec. 1899). 42

——. Statistics. "Some Electric Street Railway Data." Ryan, Harris J. St. Ry. R. 9:580 (Sept. 15, 1899). 43

——. Steam Railway Conditions, Electric Traction under. Boynton, Edward C. Elec. R. 36:298 (March 21, 1900); Davis, Charles H. Engng. M. 13:172, 367 (May, June, 1897). 44

——. Storage Batteries, Application of, to Electric Railways. Appleton, Joseph. St. Ry. J. 15:110 (Feb. 1899); Hewett, Charles. Elec. W. 30:483 (Oct. 23, 1897), Elec. Eng. 24:413 (Oct. 28, 1897), R. R. Gaz. 29:782 (Nov. 5, 1897), St. Ry. R. 7:726 (Nov. 15, 1897); Lloyd Robert McA. St. Ry. J. 15:175 (March, 1899). 45

——. "Supply of Electric Energy for Traction Purposes." Dawson, Philip. Elec. R. (Lond.) 45:827 (Nov. 24, 1899). 46

——. Surface Contact Electric Railways. Johnson, Edward H. Elec. R. 33:339, 388 (Nov. 30, Dec. 21, 1898), Elec. Eng. 26:530 (Dec. 1, 1898); anon. St. Ry. R. 7:832 (Dec. 15, 1897). 47

——. "The Engineering and Electric Traction Pocket-Book." Dawson, Philip. New York, Wiley & Sons, 1899. 16mo, 1096 pp. $5.00. 48

——. Third-Rail Electric Traction. Andrews, Horace. Mun. Engng. 19:386 (Dec. 1900); Daft, Leo. Cassier's 17:235 (Jan. 1900); Davis, Charles Henry, and Howell, W. G. Mun. Rec. & Ad. 3:701 (Aug. 15, 1898). 49

——. "Tracks and Roadbed, Electric Street Railway." Mun. Rec. & Ad. Vol. 1, No. 25, p. 6 (Nov. 27, 1897). 50

——. "Trolley, The Overhead." Potter, W. B. Mun. Rec. & Ad. 2:594 (June 15, 1898). 51

——. "Trolley in Rural Parts, The." Mun. Rec. & Ad. 2:596 (June 15, 1898).

Elevated Railways, Franchises of. "Mostly Fools." Hampden, Guy. New Nation 2:712 (1892). 52

——. "Electricity as a Motive Power on Elevated Railroads." Short, S. H. Elec. Eng. 24:114, 140, 151, 184 (Aug. 5, 12, 19, 26, 1897), St. Ry. J. 13:494 (Aug. 1897), Elec. W. 30:159 (Aug. 7, 1897), Railroad Gaz. 29:552 (Aug. 6, 1897). 53

——. "La Traction Eléctrique sur les Chemins de Fer Elevés." La Revue Technique, Feb. 25, 1898.

——. "Future of Elevated Roads." Klapp, Eugene. Engng. M. 11:34 (1896). 54

——. "New Street and Electric Elevated Roads in Europe." (Vienna, Edinburgh, Budapest, Liverpool and Lyons.) Railroad Gaz. 29:164 (March 5, 1897). 55

——. "Some Elevated Railway Problems and Results." St. Ry. J. 14:755 (Dec. 1898). 56

——. "The Passing of the Elevated Railway." (Editorial.) Engng. News 40:168 (Sept. 15, 1898). 57

"Employees, Discipline of." Davis, Geo. H. St. Ry. J. 13:767 (Nov. 1897), Elec. R. 31:233 (Nov. 15, 1897), St. Ry. R. 7:740 (Nov. 15, 1897). 58

——. "How Can We Increase the Efficiency of Employes?" Rounds, F. D. St. Ry. R. 9:573 (Sept. 15, 1899). 59

"European Street Railway Practice." Howes, Osborne. Engng. News, Nov. 21, 1891, p. 428; Dec. 5, 1891, pp. 532, 549; Engng. Rec. Nov. 21, 28 and Dec. 5, 1891;

Transit Facilities—*Continued.*

St. Ry. J. Dec. 1891, p. 678. 60

——. "Les Chemins de Fer d'Intérêt Local en Europe." de Freund, E. Ann. l'Ec. Lib. 13:581 (Sept. 15, 1898), 13:730 (Nov. 15, 1898). 61

——. (See under Electric Railways above.)

Fares. "Advantages of Up-to-Date Street Railway Service: Why the Rate of Fare Should Not Be Reduced." Rossiter, C. L. St. Ry. R. 7:617 (Sept. 15, 1897), Elec. R. 31:181 (Oct. 13, 1897). 62

——. "A system of Collection of Fares and Checking Employees." Walter, A. E. St. Ry. J. 14:741 (Nov. 1898), St. Ry. Rev. 8:787 (Nov. 15, 1898). 63

——. "Depreciation as a Factor in Four-Cent Fare Litigation." St. Ry. J. 14:381 (July, 1898).

——. "Fares in 136 Cities, Street Car." Poppleton, William S. City Govt. 9:63 (Sept. 1900). 64

——. "Ownership and Railway Fares." Slater, T. Month April, 1899. 65

——. "Reduction in Street Car Fares." (Claims a reduction of price greater than that of any other article in common use. Service has increased without increase of charges.) St. Ry. R. 7:75 (Feb. 1897).

——. "The Care and Handling of Fares from Receipt to Bank." Wight, Chas. L. St. Ry. J. 13:786 (Nov. 1897), St. Ry. R. 7:755 (Nov. 15, 1897). 66

——. "Two-Cent Fares." New York, American Fabian Society, n. d. 15 pp. 5 cts. 67

"Ferries and Steam Boats, Municipal." London 6:643 (July 29, 1897).

"Finance, Modern Methods of Tramway." Clark, William J. St. Ry. J. 16:966 (Oct. 13, 1900). 68

——. "Financial Characteristics of the Large City Transportation Systems of the World." Higgins, Edward E. St. Ry. J. 15:680 (Oct. 1899). 69

——. (See also Accounting above.)

"Fire Protection for Street Railways." St. Ry. R. 7:305 (May 15, 1897).

"Foreign Cities, Local Transportation in." Con. Rep. No. 139, 1892, pp. 597-738. 70

——. "American and British City Transportation Methods, Some Differences between." Higgins, Edward E. St. Ry. J. 16:357 (April 7, 1900), Public Policy 2:334 (May 26, 1900). 71

——. "Comparison of Street Railway Conditions and Methods in Europe and in the United States." Sullivan, F. P. St. Ry. Rev. 7:253 (April 15, 1897). 72

——. "Stadtbahnen in Europa, Amerika und Wien." Czepelka, A. Die Zeit, 21:99 (Nov. 18, 1899). 73

——. "Street Railways in Foreign Cities." St. Ry. J. 15:605 (Sept. 1899).

Franchises, Street Railway. (See under **Municipal Control, Municipal Ownership.**)

"Freight, The Right of a Street Railway to Carry." Hodge, J. Aspinwall, Jr. St. Ry. J. 15:459 (July, 1899). 74

——. "Systematic Organization of the Transportation of Goods in Towns and Cities." Engng. News May 14, 1896. 75

——. "Street Railways as Freight Carriers." Beattie, H. S. Mun. & Ry. Rec. 5:178 (Oct. 15, 1899). 76

"Gas Tramways." Lavezzari, A. Prog. Age 15:29 (Jan. 15, 1897). 77

——. "Gasbahnen." Nachtsheim, Hubert. Mitt. d. Ver. f. d. Förd. d. Local-u Strassenbahnwesens, May, 1898. 78

——. "The Gas (Street) Railroad." Egner, Frederick. Am. Gas Lgt. J. 67:47 July 12, 1897). 79

Grade Crossings. (See under **Grade Crossings.**)

"Gravity System of Rapid Transit." Henning, B. S. Engng. M. 5:167 (1893). 80

"Horse Traction and Electric Power: Some Comparisons." Challenger, Charles. Ry. World 8:107 (March 9, 1899). 81

"Investments in Street Railways: How Can they be Made Secure and Remunerative?" Yerkes, Charles T. Mun. & Ry. Rec. 5:185 (Oct. 15, 1899), St. Ry. R. 9:22 (Oct. 18, 1899), St. Ry. R. 9:755 (Nov. 15, 1899), St. Ry. J. 15:781, 789 (Nov. 1899), Other Side, 1:310 (Dec. 30, 1899), Public Policy, 2:85 (Feb. 10, 1900), City Govt. 7:109 (Nov. 1899). 82

——. "The Intrinsic Value of Investments in Street Railways." (Statistics of Capitalization, etc.) Higgins, Edward E. St. Ry. Jour. Jan, 1894, et seq. 83

Transit Facilities—*Continued.*

"Law, Street Railway." Clark, Frank Humboldt. St. Ry. Rev. 7:303, 385, 455, 527 (May 15, June 15, July 15, Aug. 15, 1897), 8:31, 167, 245 (Jan. March, April, 1898). 84

——. "Law of Street Railways." Booth, Henry J. Philadelphia, T. and J. W. Johnson, 1892. 749 pp. $6.00. 85

——. "Legal Notes and Comments. Street Railways." St. Ry. J. 13:296, 352, 415, 482 (May to Aug. 1896).

——. "Recent Street Railway Decisions." Rosenberger, J. L. St. Ry. Rev. 8:311 (May 15, 1898). 86

——. "Street Railway Law." Clark, Frank H. St. Ry. R. 7:585 (Sept. 15, 1897). 87

——. "Street Railway Legislation." Sanders, Dallas. Mun. Rec. & Ad. Vol. 1, No. 13, p. 21 (Sept. 4, 1897). 88

"Licenses, Legality of City Street Car." St. Ry. Rev. 7:445 (July 15, 1897). 89

"Lighting of Railway Cars, The." Gordes, H. Prog. Age 15:412 (Sept. 15, 1897), 15:432 (Oct. 1, 1897). 90

——. "Car Lighting with Acetylene." (Editorial.) Prog. Age 15:425 (Oct. 1, 1897).

"Location, Handbook of Street Railroad." Brooks, John P. New York, Wiley & Sons, 1898. 16mo, 146 pp. $1.50. 91

"Management, Street Railway." Sergeant, Charles S. Public Policy 2:84 (Feb. 10, 1900). 92

"Mechanical Power for Tramway Cars." Chamber's Journal Jan. 1897.

——. "Comparative Utility of Mechanical Tramway Systems." Ziffer, E. A. Railway World Dec. 1896. 93

——. "Mechanical Traction in Europe." Ziffer, E. A. St. Ry. Jour. 13:24 (Jan. 1897). 94

——. "Recent Improvements in Mechanical Traction for Railways." Ziffer, E. A. St. Ry. J. 14:710 (Nov. 1898). 95

——. "Report on some forms of Mechanical Tramway Traction that have been tried and more or less successfully worked in various towns and cities in England, on the Continent, and in America." Baker, J. Allen. Photographs. L. C. C. Doc. 396, 1899. 1s. 2d. 96

"Mileage, Car." Mackay, H. C. St. Ry. R. 9:47 (Oct. 19, 1899), St. Ry. J. 15:797 (Nov. 1899). 97

——. "Car Mileage—How Arrived at and Its Use." Ford, A. H. St. Ry. R. 8:645 (Sept. 15, 1898). 98

——. "Railway Mileage in Foreign and American Cities." St. Ry. R. 8:858 (Dec. 15, 1898).

——. "Unnecessary Track and Car Mileage." St. Ry. J. 14:438 (Aug. 1898). 99

"Money Centers and Tramway Opportunities of the World, The." St. Ry. J. 15:98 (Feb. 1899).

"Motive Powers, The Battle of the." (Editorial.) St. Ry. J. 13:650 (Oct. 1897).

Municipal Control, Municipal Ownership of Street Railways, etc. (See under **Municipal Control, Municipal Ownership.**)

"Parks, Street Railway." St. Ry. Jour. 13:93, 149, 289, 346 (Feb. March, April, June, 1897).

"Pavements, Street Railways and Street." Boyle, John W. Mun. & Ry. Rec. 4:175 (May 15, 1899). 100

"Paving an Improper Basis of Compensation for Street Railway Franchises, Street." Engng. News 37:376 (June 17, 1897). 1

"Power Distribution and the Use of Multiphase Current Transmission for Ordinary Street Railways." Hoopes, Maurice. Elec. World 30:479 (Oct. 23, 1897), Engng. News 38:275 (Oct. 28, 1897), Elec. Eng. 24:440 (Nov. 4, 1897), Railroad Gaz. 29:796 (Nov. 12, 1897), St. Ry. J. 13:763 (Nov. 1897), St. Ry. R. 7:733 (Nov. 15, 1897). 2

——. "The Supply of Power to Private Persons by Street Railways." Mun. Rec. & Ad. 3:872 (Nov. 15, 1898). 3

——. "Tramway Power from Lighting Stations." Ry. World 7:21 (Jan. 1898).

"Profits on Tramway Undertakings." Gadsby, C. H. Elec. R. (Lond.) 47:75 (July 13, 1900), St. Ry. J. 16:684 (July 28, 1900). 4

"Public Policy Concerning Rapid Transit." Hooker, George E. (Pp. 77-88 in Report of the Street Railway Commission of the City Council of the City of Chi-

Transit Facilities—*Continued.*

cago." Chicago City Council, 1900. 8vo, 136 pp. Paper.) 5

Rapid Transit in Large Cities. Clarke, Thomas C. Scrib. M. 11:567, 743 (1892); Gribble, T. G. St. Ry. J. March, 1891, p. 147, Railroad Gaz. April 3, 1891, p. 227; Haupt, Lewis M. Cosmop. 12:175 (1891), J. Frankl. Inst. 125:1 (1888); Johnson, G. H. Frank Leslie's July, 1900; Lundie, John. St. R. J. 15:229 (April, 1899); Sprague, Frank J. Elec. Eng. Aug. 1888; Walker, John Brisben. Cosmop. 20:26 (1895). 6

——. "Electricity or Steam in Rapid Transit—Which?" Moffat, George. Am. Engineer & Railroad Jour. (New York) June, 1897. 7

——. "Passenger Traffic, Rapid Transit—in Large Cities." Croes, James. R. R. Gaz. Dec. 16 and 30, 1892. 8

——. "Slums, Effect of Rapid Transit on." Real Estate Rec. & Guide July 30, 1892, p. 141.

——. "Subways in Metropolitan Cities, Rapid Transit." Mun. Aff. 4:458 (Sept. 1900). 9

"Receipts, Conscience a Factor in Street Railway." Other Side 1:311 (Dec. 30, 1899). 10

"Roadbed, Street Railway." Pratt, Mason D. New York, Wiley & Sons, 1898. 8vo, 139 pp. Cl. $2. 11

Sidewalks, Traveling. "Stufenbahn und ihre Bedeutung für den Massenverkehr in Grossstädten." Glaser's Annalen (Berlin) Feb. 1, 1897. 12

"Small Cities, Operation of Street Railways in." Leseure, E. K. St. Ry. R. 8:359 (June 15, 1898), St. Ry. J. 14:375 (July, 1898). 13

——. "How to make Profitable Small Street Railways." St. Ry. J. 14:140 (Mar. 1898).

——. Tramway Extension in Smaller Towns and City Suburbs. Ry. World 6:201 (July, 1897). 14

"Speeds, Tramway." Geron, M. H. Ry. World 7:265 (Aug. 4, 1898), St. Ry. R. 8:712 (Oct. 15, 1898). 15

"Statistics—Their Use and Abuse." Hibbs, E. D. St. Ry. J. 14:638 (Oct. 1898). 16

"Street Railways." Elec. R. 31:156 (Sept. 29, 1897).

——. "Construction, Operation and Maintenance of Street Railways. A Practical Handbook for Street Railway Men." Fairchild, C. B. New York, Street Ry. Pub. Co., 1892. $4. 17

——. "Construction, Some Details of Street Railway." Rosencrans, W. H. Mun. Engng. 16:139 (March, 1899). 18

——. "Facts and Fancies Concerning Street Railroads." Cole, W. W. St. Ry. R. 7:615 (Sept. 15, 1897). 19

——. "Operation and Maintenance of Street Railways." MacGregor, H. P. St. Ry. J. 16:416 (April 28, 1900). 20

——. "Public Service, Street Cars and." (Editorial.) Railroad Gaz. 31:316 (May, 5, 1899).

——. Report of Massachusetts Special Committee on Street Railways. (See Transit Facilities under **Municipal Control.**)

——. "Street and Elevated Railway Mileage, Cars and Capitalization in the United States and Canada." St. Ry. J. 16:558 (June 2, 1900). 21

——. "Street Railways in Public Highways." St. Ry. R. 8:262 (April 15, 1898).

——. Street Railways in their relation to the plan of the city. pp. 213-224 J. Stübben's "Städtebau." Damstadt, Bergsträsser, 1890. 561 pp. 32m. 22

——. "The Present Status of the Street Railway." Rogers, G. Tracy. Elec. R. 35:178 (Sept. 20, 1899). 23

"Tracks, Construction and Maintenance of Street Railway." Butts, Edward. St. Ry. J. 15:795 (Nov. 1899), St. Ry. R. 7:766 (Nov. 15, 1899). 24

——. "Car Tracks and Pavements." Owen, James. Am. Soc. Civil. Engrs. Nov. 1896. 25

——. Track Construction on Paved Streets. Beeler, John A. Mun. Engng. 13:214 (Oct. 1897); Burke, M. D. J. Assoc. Engng. Soc. (April, 1899); Lewis, N. P. Guthrie, Edw. B., and Ames, Geo. N. St. Ry. R. 8:881 (Dec. 15, 1898); anon. City Govt. 5:190 (Nov. 1898); Mun. Engng. 15:346 (Dec. 1898). 26

——. "Tramway Foundations." Surveyor 18:724 (Dec. 28, 1900). 27

"Traction, Tramway." (Review and criticism of the report of committee of the

Transit Facilities—*Continued.*

Corporation Tramways of Sheffield, Eng., after a trip including the principal towns of England and the Continent where different systems of tramway traction were in operation.) Engineer (London) May 14, 1897. 28

——. "Tramway Traction. Report on some forms of Mechanical Tramway Traction that have been tried and more or less successfully worked in various towns and cities in England, and on the Continent and in America." Baker, J. Allen. London, P. S. King & Son, 1898. 1s. 29

"Traffic, Methods of Increasing." Banks, W. St. Ry. J. 14:795 (Dec. 1898). 30

"Train Resistance." Blood, John Balch. St. Ry. J. 15:142 (March, 1899). 31

——. "A New General Formula for Train Resistance." St. Ry. J. 15:96 (Feb. 1899).

"Train Service and Its Practical Application." McCormack, Ira A. St. Ry. J. 15:790 (Nov. 1899), St. Ry. R. 9:770 (Nov. 15, 1899). 32

"Transfers from the Printer to the Furnace, The Handling of." Calderwood, John F. St. Ry. J. 13:783 (Nov. 1897), St. Ry. R. 7:759 (Nov. 15, 1897). 33

"Transportation of a Busy People, The." Hammer, William J. Ind. 51:1288 (May 11, 1899), Mun. & Ry. Rec. 4:214 (June 15, 1899). 34

"Transportation Problems in Cities, Some of the Larger." Higgins, Edward E. J. Frankl. Inst. 147:315 (April, 1899), 147:344 (May, 1899), St. Ry. J. 15:311 (May, 1899), Mun. Aff. 3:234 (June, 1899). 35

"Underground Railroads in Cities." San. Eng. May 20, 27, 1896, et seq.

——. Operating System for City Subways. "Die Wahl des Betriebs-Systemes für Städtische Tiefbahnen." Schimpff, Gustav; Kübler, William. Deut. Bau. May 5, 1900. 36

——. "The Future of the 'Underground' Railway." Bird, George Frederick. Eng. 87:105 (Feb. 3, 1899). 37

Trees in Cities. (See under **Parks, Streets.**)

Trenton, N. J.

"Paving in Trenton, Brick." Haven, C. C. City Govt. 3:193 (Dec. 1897). 38

"Police Force of Trenton, N. J." City Govt. 2:46 (Feb. 1897). 39

Trieste, Austria.

Lighting, Electric. Herzog, Josey. Elec. W. & E. 35:21 (Jan. 6, 1900); Szuk, G. Elektrotech. Zeitschr. 21:94 (Feb. 1, 1900). 40

Sewage and Garbage Disposal. See 56-40a, 40b.

Troy, N. Y., History, description and statistics of, in 1880. Census. See 1-7. 41

"**Tunbridge Wells [Eng.]**, The Growth of." Mun. J. & London 8:923 (Aug. 18, 1899). 42

Turin, Italy. "I Monopolii dannósi in matería di Acquedótti cittadíni e l'Ordine del giórno del Circolo centrale di Torino, dell'ing." Corradini, F. Ingegneria Sanitaria June, 1896. 43

Turkey.

"Charity in Turkey." Flakky, T. p. 284 "International Congress," Vol. I, 1893. See 43-99. 44

Local and Municipal Government in Turkey. Demombynes, Vol. I, pp. 752-756. See 2-11. 45

Tweed Ring. (See under New York.)

Typhoid Fever and Water Supply. (See under **Water Supplies of Cities.**)

"**Ulm [Ger.]**, Workingmen's Homes in the City of." Crowell, John F. Outlook 63:160 (Sept. 16, 1899). 46

Unemployed, The.

See also Baltimore, Basle, Berne, Boston, Chicago, England under United Kingdom, Germany, Hartford, Massachusetts, New York, Paris, Saoramento, Switzerland, United Kingdom, United States, Zürich.

"Agencies for Dealing with the Unemployed." Econ. J. p. 181, 1894.

Causes and Remedies. "Die allgemeine Arbeitslosigkeit, ihre Ursachen und Beseitigung." Schmidt, C. D. Berlin, Buchh. Vorwärts, 1895. 8vo, 48 pp. 20 pf. 47

——. "Economic Cause of Unemployment." Hobson, J. A. Contemp. 67:744 (1895). 48

——. "Le Chômage Moderne. Causes et Remèdes." Thury, M. Geneva, Eggimann, 1895. 12mo, 2fr. 50c. 49

Employment Agencies. "Bureaux Municipaux de placement gratuit, leur situation actuelle." Le Bailly, A. J. Paris, Le Bailly, 1890. 7fr. 50c. 50

——. "Cooper Union Labor Bureau." (New York.) Publications New York Association for Improving the Condition of the Poor, 1896. 23 pp. 51

——. "Free Public Employment Offices." Labor Bulletin, Mass. No. 14, p. 45 (May, 1900). 52

——. "Public Employment Offices in the United States and Germany." Bogart, E. L. Q. J. E. 14:341 (May, 1900). 53

——. "Municipal Labor Bureaux." Mun. J. & London 8:393 (March 31, 1899).

"Experiments in behalf of Unemployed." Speirs, F. W. Char. R. 1:304 (1892); Warner, Amos G. Q. J. E. 5:1 (1890). 54

"Future Problem of Charity and of the Unemployed." Brooks, J. G. Ann. Am. Acad. Pol. Sci. 5:1 (1894). Separate, pamphlet, 27 pp. 25 cts. 55

"Insurance against Unemployment." Appendix I, p. 361 "Workingmen's Insurance." Willoughby, William Franklin. New York, Crowell, 1898. 8vo, 386 pp. $1.75. 56

——. "Die Arbeitslosigkeit und ihre Abwehr oder Linderung." Böhmert, Victor. Arbeit. 33:1 (1895). 57

——. "L'Assurance contre le Chômage." Denjean, G. Paris, Guillaumin, 1899. 8vo. 58

——. "L'Assurance contre le Chômage Involontaire." Rostand, Eugèn. Ref. Soc. p. 721 (Nov. 16, 1894). 59

——. "L'Assurance contre le Chômage et la Société Moderne." Egger. Neuchâtel, 1894. 60

——. "Insurance against non-employment." Monroe, Paul. Am. J. Sociol. 2:771 (May, 1897). 61

——. "Insurance against Unemployment." Willoughby, William Franklin. Pol. Sci. Q. 12:476 (1897). 62

——. Municipal Insurance. "L'Assurance Municipal contre le Chômage Involuntaire." Cornil, Georges. (Contains a bibliography, p. III-XI, mainly of French and German works on the subject.) Brussels, Imprimerie Universitaire, 1898. 12mo, 202 pp. Paper, 5f. 63

——. "Die Gemeinden und die Arbeiterversicherung." v. Frankenberg, H. Jr. Gesetz. Ver. Volks. 21:105 (1897). 64

——. "Gemeinde-Versicherung gegen Arbeitslosigkeit." Berghoff, Ising. Soziale Praxis, 1895; I semestre, p. 133; 2 semestre, p. 72. 65

——. "Vorschläge zur kommunalen Arbeitslosen-Versicherung." Soziale Praxis, No. 34, p. 917, 1895. 66

——. "Neue Beiträge zur Frage der Arbeitslosen-Versicherung." Schanz, Georg. Berlin, C. Heymanns Verl. 1897. 8vo, 216 pp. 4m. 67

——. Versicherung gegen Arbeitslosigkeit. v. Boenigk, Otto. Zeit. Staatswissen 51:689 (1895); Faisst, Rudolf. Evangelisch-sociale Zeitf. 2nd. series, Heft 9, 1894; Herkner, H. Sociale Praxis, No. 39, p. 1037 (1895); v. Lenz, Richard. Schweiz. Bl. 1:278 (1894); Schartlin, G. Schweiz. Bl. No. 2 (1893). 68

——. "Die Versicherung gegen die Folgen der Arbeitslosigkeit." Schorrer, A. Schweiz. Bl. 2:289 (1894). Reviewed by Schanz, George, same 1:136 (1895). 69

——. "Die Versicherung gegen Stellenlosigkeit im Handelsgewerbe." Hall, Hans. Munich, Handels Zeitg., 1894. 8vo, 20 pp. 20 pf. 70

——. "Zur Frage der Arbeitslosen-Versicherung." Schanz, George. Bamberg, C. C. Buchners Verl., 1895. 8vo, 384 pp. 6m. 50 pf. 71

——. "Zur Frage der Arbeitslosen-Versicherung." Schindler, Huber. Zurich, 1895. 72

Unemployed—*Continued.*

——. "Workingmen's Insurance." Willoughby, William Franklin. New York, Crowell, 1898. 8vo, 386 pp. $1.75. 73

——. "Workmen's Insurance and The Unemployed." Ferraris, C. F. Nuova Antologia, Jan. 1, 16, 1897. 74

Involuntary Unemployment. "La Question du Chômage Involontaire." Fonsalme. R. Pol. e. Par. 8:416 (1896). 75

"Labor Colonies. and the Unemployed." Mayor, L. J. Pol. Econ. 2:26 (1893). 76

——. "Colonies for the Unemployed." Moore, H. E. Contemp. 63:423 (1893). 77

——. "Europe, Labor Colonies in." Stevenson, D. M. New R. 7:493 (1892). 78

——. "German Labor Colonies." Warner, Amos G. Q. J. Econ. 6:462 (1892). 79

"Manufacturing a new Pauperism." Loch, C. S. 19th Cent. 37:697-708 (1895). 80

"Meaning and Measure of Unemployment." Hobson, J. A. Contemp. 67:415 (1895). 81

Municipalities and Unemployment. "Le Chômage et les Municipalités." Heins, Maurice. R. Municipale 3:2076 (April, 23, 1900). (See also under Insurance above.) 82

Mutual Aid Associations. "L'Assurance contre le Chômage et les Sociétés de Secours Mutuels." Jay, Raoul. R. Pol. e. Par. 7:348 (1896). 83

——. "Les Assurances Ouvrières: Mutualités contre la Maladie, l'Incendie et le Chômage." Rochetin, Eugène. Paris, Guillaumin et Cie., 1896. 12mo. 3 fr. 50c. 84

"Problem of the Unemployed." Hobson, J. A. London, Methuen & Co., 1895, 163 pp. $1; MacDonald, J. A. New R. 9:561 (1893); Salter, W. M. New Eng. M. 4:108 (1886); anon. Soc. Econ. 6:11 (1894). 85

Remedies. "Le Chômage Professionel: les Moyens de le Combattre et de l'Atténuer." Leroy-Beaulieu, Paul. L'Economiste Française 1:417, 449 (1894). 86

——. "Le Chômage et les Moyens de l'Atténuer et d'y Remèdier." Michel, Georges. L'Economiste Française 2:782 (1894), 2:380, 799, 835 (1895). 87

——. "How to Help the Unemployed." George, H. No. Am. 158:175 (1894). 88

——. "Methods of Relief for the Unemployed." Lowell, J. S. Forum 16:655 (1894). Same subject Westergaard, Nationock Tids. Nos. 1 and 2 (1894). 89

——. "Relief for the Unemployed." Shaw, Albert. Am. R. of Rs. 9:29 (1894). 90

——. "Relief for the Unemployed by extra Public Service." Char. R. 3:132 (1894). 91

——. "Succor for the Unemployed." Browne, Junius Henri. Hrprs. Wkly. 38:10 (1894). 92

——. "Treatment of Unemployed." Preston, S. O. Char. R. 3:218 (1894). 93

——. "What to do with the Unemployed." Godkin, E. L. Nation 57:481 (1893). 94

——. "Workless Man, What to do with the." Gladden, Washington. Ohio Bulletin of Charities and Correction, vol. 5, No. 2, p. 10 (June 30, 1899). 95

"Report of an Enquiry into the Condition of the Unemployed, conducted under the Toynbee Trust." Woodworth, A. V. London, J. M. Dent & Co. 1897. 60 pp. 6d. 96

Right to Work. "Die Arbeitslosigkeit und das Recht auf Arbeit." Delbrück, Hans. Preuss. Jahrbücher, 85:80 (1896). 97

——. "Das Recht auf Arbeit und die Arbeitslosenversicherung." Drexler, A. Bale. 1894. 98

——. "Das Recht auf Arbeit und der Kampf gegen die Arbeitslosigkeit." Schäppi, J. Zurich, 1894. 2d ed. 8vo, 39 pp. 50 pf. 99

——. "Recht auf Arbeit." Adler, J. Vol. v, pp. 363-369, Conrad. 1st ed. 1893. See 2-10. 100

Socialism. "Le Socialisme municipal." Mataja, Victor. R. Econ. Pol. Dec. 1894. 1

"State Aid, Necessity of." Coit, Stanton. Forum 17:276 (1894). Reply by Means, MacG. Forum 17:287 (1894). 2

——. "Duty of the State toward the Unemployed." Cowell, H. C. B. Pub. Opin. 16:121 (1893). 3

——. "Ueber die Aufgaben des Staats angesichts der Arbeitslosigkeit." Adler, Georg. Tübingen, Laupp, 1894. 54 pp. 1 m. 20 pf. 4

Statistics. "Zur methode der Arbeitslosenstatistik." Schikowski, John. Leipzig, W. Friedrich, 1895. 8vo, 66 pp. 1 m. 5

——. "Die neuen statistischen Erhebungen über Arbeitslosigkeit in Deutschland." Schanz, Georg. Ar. Soc. Gesetz. Stat. 10:325-378, 1897. 6

Unemployed—*Continued.*

——. "Ein Beitrag zur Arbeitslosenstatistik." Oldenberg. Sozialpol. Centralbl. Nov. 14, 1892, May 8, 1893; Jr. Gesetz. Ver. Volks. 1:631, 655 (1895). 7

——. "Methoden der deutschen Arbeitslosenstatistik." Thiess, Karl. Deutsche Worte, pp. 673-706 (Nov. 1893). 8

——. "Ueber Arbeitslosigkeit und Arbeitslosenstatistik." Schikowski, John. Leipzig, W. Friedrich, 1894. 8vo, 88 pp. 1m. 20 pf. 9

——. "Zur Methode der Arbeitslosenstatistik." Braun, Adolf. Sozialpol. Centralbl. Oct. 10, 1892, Nov. 7. 1892. 10

"Training Farms for the Unemployed." Barnet, A. A. 19th Cent. 24:753 (1888). 11

Tramps, Articles on. McCook, J. J. Char. R. 1:355 (1892), 3:57 (1893), p. 97 International Congress, vol. I, 1893, see 43-99, Forum 15:753 (1893); Flynt, Josiah. Cent. 47:706 (1895), June, 1893, Critic 36:564 (June, 1900). 12

——. "Das Bettelwesen in Grossstädten." Münsterberg, E. Deut. Rund. 26:221 (May, 1900). 13

——. "Club Life among Outcasts." Flynt, Josiah. Harpers 90:712 (1895). 14

——. "Le Problème du Vagabondage." Fourquet, Emile. R. Pol. e. Par. 22:595 (Dec. 10, 1899). 15

——. "The Tramp Problem in Cities." City Govt. 4:87 (March, 1898). 16

——. "Tramping with Tramps: studies and sketches of vagabond life." (Prefatory note by Andrew D. White.) Flynt, Josiah. New York, Century Co., 1899. 398 pp. $1.50. 17

——. "Foreign Countries, Vagrancy and Public Charities in." U. S. Sp. Cons. Rep., 1893. 350 pp. 18

Unemployment, General. (The Bulletin de l'office du Travail, France; the Revue du Travail Belge; and the Labour Gazette, London, continuously devote considerable attention to the question of unemployment.)

——. "Arbeitslose, Heimatslose, Hoffnungslose." v. Bodelschwingh. Arbeit (Berlin) 35 Jahrg., pp. 214-220, 1897. 19

——. "Arbeitslosigkeit." Adler, Georg. pp. 920-951, Vol. I, Conrad, 2d ed. See 2-10. 20

——. "Die Arbeitslosigkeit und ihre Bekämpfung." Jutzi, W. Darmstadt, H. L. Schlapp, 1895. 8vo, 144 pp. 1m. 50 pf. 21

——. "Die Arbeitslosigkeit und ihre Bekämpfung." Wolf, J. Dresden, Zahn & Janesch, 1896. 8vo, 40 pp. 1 m. 22

——. "Die Arbeitslosigkeit und ein neuer Vorschlag zu ihrer Bekämpfung." Kotzmann, A. Frankfurt a. M., 1895. 23

——. "Die Arbeitslosigkeit und die moderne Wirthschaftsentwicklung. Eine Mahnung zur Vorsicht gegenüber der obligatorischen Arbeitslosen-Versicherung und dem kommunalen Arbeitsnachweis." Forster. Berlin, 1898. 24

——. "Ein Beitrag zur Lösung der Arbeitslosenfrage." Buschmann, Nikolaus. Berlin, Putthammer & Mühlbrecht, 1897. 8vo, 129 pp. 2 m. 25

——. "The Conservative Programme of Social Reform; the Unemployed." Gorst, John E. 19th Cent. 38:5 (1895). 26

——. "I Disoccupati." Rabbeno, Ugo. Riforma Soc. 2:137 (1894). 27

——. "German Cities, The Unemployed in." Brooks, J. G. Q. J. E. 7:353 (1893). 28

——. "Der Kampf gegen die Arbeitslosigkeit." v. Wattenwyl, J. Berne, 1893. 29

——. "Die Massnahmen gegenüber der Arbeitslosigkeit." Hirschberg. Volksw. Zeit., Berlin, 1894. 30

——. "Le Soluzioni del Problema dei Disoccupati." Fiamingo, Guiseppe. G. degli Econ. pp. 607-637, 1895; Annales de l'Institut International de Sociologie pp. 111-139, 1895. 31

——. "Städtische Socialpolitik." Mataja, Victor. Zeit. Volks. Soc. u. Ver. 3:519 (1894). 32

——. "Unemployed Labor." Bourne, H. C. Macmil. 67:81 (1892); Burns, J. 19th Cent. 32:845 (1892). 33

——. "The Unemployed." Barnet, S. A. Fortn. 60:741 (1893); Bonsfield, W. R. Contemp. Dec. 1896; Burns, John. London, Fabian Soc. 1893, Tract No. 47, 18 pp., 1d.; Ely, Richard T. Hrprs. Wkly. 37:845 (1893); Lee, G. W. Lend a H. 14:185 (1895); Mackay, Char. Or. R. p. 3, 1894; White, A. Fortn. 64:454 (1893); Will, T. E. Arena 10:701 (1894); Wright, Carrol D. Soc. Econ. 2:71 (1891); anon. Encyc. Soc. Ref. pp. 1340-1357. See 1-3. 34

Unemployed—*Continued.*

——. "The Unemployed." Drage, Geoffrey. London and New York, Macmillan, 1895. 277 pp. 8s. 6d. 35

Vagrancy. (See Tramps above.)

United Kingdom.

Government, General References, Unclassified.

"Activity of the English Municipalities, The Present." Porritt, Edward. Ind. 51:816 (March 23, 1899). 36

"Centralization." Ed. R. 85:221 (1847), 115:323 (1862). 37

——. "Il decentramento in Inghilterra et le sue possibli applicazioni in Italia." Baer. Nuova Antologia Vol. XI, XII, XIII. 38

"City and Borough." (Past and present application of these terms.) Freeman, E. A. Macmil. 60:29 (1889). 39

Commissions. "Government by Commissions Illegal and Pernicious." Smith, J. Toulmin. London, Sweet, 1849. 8vo, 10s. 6d. 40

"Conservative Municipal Policy, The." London 7:103 (Feb. 17, 1898); Elec. Eng. 26:642 (Dec. 29, 1898). 41

"County Boards." Acland, C. T. D. p. 89 "Local Government and Taxation in the United Kingdom." J. W. Probyn, editor. London & New York, Cassell, 1882. 42

"County Borough, The Youngest." Mun. J. & London 8:1331 (Dec. 15, 1899). 43

——. "A Statement of the County Boroughs, other boroughs, urban districts other than Boroughs and Rural Districts in England and Wales (excluding the metropolis) on the 1st of September, 1895, with notes and appendix showing changes of areas, etc., to the 1st of April, 1897." London, Eyre & Spottiswoode, 1897. 2s. 44

"Curiosities, Some Municipal." Knight, Herbert. Harmsworth M. 4:568 (July, 1900). 45

Decentralization. (See under Centralization above.) 46

"Disunity in Central and Local Administration, Evils of, especially with relation to the Metropolis." Chadwick, Edwin. London, Longmans, 1885. 8vo, 125 pp. 47

"Englishman at Home, The." (Local Government discussed.) Porritt, Edward. New York, Crowell, 1893. $1.75. 48

Government of Cities. (See under Local Government, Municipal Government below.)

Ireland, Local Government in. Clancey, John J. No. Am. 167:287 (Sept. 1898); Morris, William O'Connor. Scottish R. 32:133 (July, 1898); McDermot, George. Catholic W. 68:361 (Dec. 1898); anon. Mun. J. 9:120 (Feb. 16, 1900). 49

——. "Law Relating to Local Government in Ireland." Ponsonby, E. 8vo, 704 pp. 21s. 50

——. "Local Government in Ireland." London, The Fabian Society, 1900. 15 pp. Pamphlet, 1d. 51

——. "Local Government and Taxation in Ireland." Hancock, W. Neilson. p. 173 "Local Government and Taxation." J. W. Probyn, editor. London & New York, Cassell, 1875. 5s. 52

——. "Local Government and Taxation in Ireland." O'Shaughnessy, Richard. p. 319 "Local Government and Taxation in the United Kingdom." J. W. Probyn, editor. London & New York, Cassell, 1882. 5s. 53

——. "Municipal Government, Irish." Westm. 48:82 (1848).

——. "Rural Administration in Ireland." Bagwell, Richard. National R. No. 178, p. 535 (Dec. 1897). 54

Local Government, etc. "English Municipal Code, Municipal Corporations Act, 1882." Williams, J. H. W. and Vine, J. B. London, Waterlow, 1888. 373 pp. 7s. 6d. 55

——. "Evolution of Local Government." Webb, Sidney. Mun. J. & London 8:1199 (Nov. 3, 1899), 8:1227 (Nov. 10, 1899), 8:1247 (Nov. 17, 1899), 8:1271 (Nov. 24, 1899), 8:1295 (Dec. 1, 1899), 8:1313 (Dec. 8, 1899), 9:111 (Feb. 9, 1900). 56

——. "Lectures on the Principles of Local Government." (Great Britain.) Gomme, George Laurence. Westminster, Archibald Constable & Co., 1897. 8vo, 267 pp. Cl. $4.80 57

——. "L'Administration locale de l'Angleterre." Arminjon, Pierre. Paris, Che-

United Kingdom—*Continued.*

valier Maresecq, 1895. 8vo, 6 fr. 58

——. "L'Administration locale en France et en Angleterre." Leroy-Beaulieu, Paul. Paris, Guillaumin, 1872. 8vo. 59

——. "Le Gouvernement local de l'Angleterre." Vauthier, Maurice. Brussels, Mayolez, 1895. 8vo. 8 fr. 60

——. "Le Gouvernement local et la Tutelle de l'Etat en Angleterre." Boutmy, Emile. Annales de l'Ecole Libre des Sciences Politiques, April, 1886. 61

——. "Local Administrative Government." Ch. IX, Bk. III, p. 725 "Institutions of the English Government." Cox, Homersham. London, H. Sweet, 1863. 757 pp. 24s. 62

——. "Local Government." Chalmers, M. D. London, Macmillan & Co., 1883. 160 pp. 3s. 6d. 63

——. "Local Government." Odgers, William Blake. London, Macmillan & Co., 1899. 12mo, 284 pp. Cl. 3s. 6d. 64

——. "Local Government Annual, The: An Official Directory, 1899." Edgecumbe-Rogers, S. London, The Local Government Journal Office, 1899. 12mo, 320 pp. Cl. 2s. 6d. 65

——. "Local Government Act, 1888,—Main Roads." Minett, R. Report of the Proceedings of the Eighth Annual Meeting of the Corporate Treasurer's and Accountants' Institute, Hull, June 22-23, 1893, p. 51. 66

——. Local Government Bill, 1888. Goodnow, Frank J. Pol. Sci. Q. 3:311 (1888); Manning, H. E. C. Fortn. 49:790 (1888); Thring, Lord. 19th Cent. 23:423, 641 (1888). 67

——. "Local Government, Bill for, in England in 1892." Spec. 68:257 (1892). 68

——. "Local Government Act, 1894." MacMorran, A., and Dill. London, Shaw and S., 1894. 15s. 69

——. "Local Government Act, Handbook on the, 1894." Hadden. London, Hadden, Best & Co., 2d ed., 1895. 8vo. 9s. 70

——. "Local Government Board, The." Maltbie, Milo Roy. Pol. Sci. Q. 13:232 (June, 1898). 71

——. "Local Government Considered in its Historical Development in Germany and England, with special reference to Recent Legislation on the Subject in Prussia." Morier, R. B. D. p. 357 "Local Government and Taxation." J. W. Probyn, editor. London & New York, Cassell, 1875. 5s. 72

——. "Local Government in England." Goodnow, F. J. Pol. Sci. Q. 2:638 (1887). 73

——. "Local Government in England." Brodrick, George C. p. 1 "Local Government and Taxation." J. W. Probyn, Editor. London & New York, Cassell, 1875. 5s. 74

——. "Local Government in England." Brodrick, George C. p. 5 "Local Government and Taxation in the United Kingdom." J. W. Probyn, editor. London & New York, Cassell, 1882. 5s. 75

——. "Local Government in England and Wales." Rathbone, William, Jr. 19th Cent. 13:297, 509 (1883). 76

——. "Local Government, Outlines of English." Jenks, E. London, Methuen & Co., 1894. 236 pp. 2s. 6d. 77

——. "Local Government and Taxation." Rathbone, William; Pell, Albert; Montague, F. C. London, Sonnenschein, 1885. 8vo. 1s. 78

——. "Local Government and Taxation in the United Kingdom: a series of essays published under the sanction of the Cobden Club." Probyn, J. W. editor. London, Paris & New York, Cassell, 1882. 520 pp. 5s. 79

——. "Local Government and Taxation, excluding London." Wright, R. S. and Hobhouse, Henry. London, Sweet and Maxwell, 1884. 6s. Supplement, London, 1888. 34 pp. 80

——. "Local Government of To-day, English: A Study of the Relations of Central and Local Government." Maltbie, Milo Roy. Columbia University Studies, Vol. IX, No. 1, 1897. 8vo, 296 pp. Cl. $2.50. 81

——. Local Institutions. "Institutions locales de l'Angleterre." Ch. IV, pp. 331-421 H. de Ferron's "Institutions Municipales et Provinciales comparées." Paris, Alcan, 1884. 8vo, 570 pp. 82

——. "La Commune en Angleterre, Régime Municipal et Institutions Locales de l'Angleterre, de l'Ecosse et de l'Irlande." Valframbert, Charles. Paris, Larose et Forcel, 1882. 6 fr. 83

——. Local and Municipal Government in Great Britain. Demombynes, Vol. I, pp. 24-54. See 2-11. 84

United Kingdom—*Continued.*

——. "Municipal Boroughs and Urban Districts." Bunce, J. Thackeray. p. 271 "Local Government and Taxation in the United Kingdom." J. W. Probyn, editor. London & New York, Cassell, 1882. 5s. 85

——. "Powers of Local Authorities." Thompson, W. Fabian Tract No. 101, pp. 19-26. London, Fabian Society, 1900. 8vo, 50 pp. 1d. 86

——. "Self-Government, Communalverfassung und Verwaltungsgerichte in England." von Gneist, Rudolph. Berlin, Julius Springer, 3d ed., 1871. 1018 pp. 13m. 20 pf. 87

——. "The Value of Local Government." Chamberlain, Joseph. Local Govt. J. 26:734 (Nov. 13, 1897). 88

Municipal Functions, Recent Development of. "Le nouve Forme della Funzione Municipale in Inghilterra." Bachi, Riccardo. Turin, Roux Frassati & Co., 1897. 8vo, 67 pp. Pamphlet, 50c. 89

"Municipal Government in England." Shaw, Albert. J. H. Univ. Studies. Notes No. 1, 1884; Porritt, E. Chaut. 21:168 (1895). 90

——. "Municipal Government in England and the United States." (Refers mainly to Boston and Birmingham.) Chamberlain, Joseph. Forum 14:267 (1892). See also Our Day 11:123 (1893). 91

——. "Municipal Government in Great Britain." Shaw, Albert. New York, Century Co., 1895. 8vo, 500 pp. $2. 92

——. "Municipal Government in Great Britain." Shaw, Albert. Pol. Sci. Q. 4:2 (1889). 93

"Municipal Institutions in their past and future, Our." Picton, J. A. Liverpool, 1882. 8vo. 94

"Municipal Officer, The." Gomme, G. L. Mun. J. & London 9:9 (Jan. 5, 1900). 95

——. "Municipal Reform." Hickson, W. E. Westm. 25:71 (1836), 39:263 (1843); Roebuck, J. A. Westm. 30:48 (1838); anon. Quar. 54:231 (1835). 96

——. "Basis of Municipal Reform." Emmet, J. T. London, Simpkins, 1895. 6d. 97

"Municipal Representatives." (Eng.) Wormsley, B. J. San. Inst. 18:327 (Oct. 1897). 98

"Municipal Spirit in England." Porter, Robert P. No. Am. 161:590 (1895). 99

Municipalities, English. "Les Municipalités Anglaises. Loi Organique du 18 août. notice, traduction et notes." Dehaye, A. Paris, Cotillon, 1883. 4 fr. 100

"Municipalities on their Trial, English." Leighton, S. National 9:418 (1887). 1

"Of the Municipality." Gomme, G. Laurence. p. 52 "Good Citizenship," edited by J. E. Hand. London, Geo. Allen, 1899. 474 pp. 2

"Parish, The." Smith, J. Toulmin. London, Sweet, 1857. 18s. 3

——. "Handy Book of Parish Law." Holdsworth, W. A. London, Routledge, 1891. 12mo. 2s. 6d. 4

——. "Parish and District Councils: What they are and what they can do." London, Fabian Society, 1895. Fabian Tract No. 62, 15 pp. 1d. 5

——. "Parochial Self-Government in Rural Districts." Stephens, Henry C. London, Longmans, G. & Co., 1893. 4to, 270 pp. 12s. 6d. 6

——. "Practical Guide to the Parish Councils Act." Graham. A. H.; S. Brodhurst. London, Ward, Lock, 1894. 8vo. 1s. 7

——. "Ready Reference Guide to Parish Councils and Parish Meetings." Stone, J. H.; Pease, J. G. London, Philip, 7th ed., 1895. 8vo. 2s. 6d. 8

——. "Separate Parishes contrasted with Municipal Boroughs." Adams, Ernst A. R. Report of the Proceedings of the Eighth Annual Meeting of the Corporate Treasurers' and Accountants' Institute, Hull, June, 22-23, 1893. p. 66. 9

Scotland. "Byelaws and Standing Orders for Burghs in Scotland." Muirhead, J. Glasgow, 1895. 8vo. 10

——. "The County Council Guide for Scotland. Handbook to Local Govt. Act (Scotland), 1889." Nicolson, J. B. and Mure, W. J. Edinburgh, Blackwoods, 1889. 8vo. 5s. 11

——. "Local Government [in Scotland.]" Goudy, H., and Smith, W. C. Edinburgh and London, 1880. 12

——. "Local Government in Scotland." Shaw, C. G. Scottish Review 13:1 (1889). 13

——. "Local Government and Taxation in Scotland." M'Neel-Caird, Alexander, p. 97 "Local Government and Taxation." J. W. Probyn, editor. London & New York, Cassell, 1875. 5s. 14

United Kingdom—*Continued.*

——. "Local Government and Taxation in Scotland." Macdonald, William. p. 385 "Local Government and Taxation in the United Kingdom." J. W. Probyn, editor. London & New York, Cassell, 1882. 5s. 15

——. "Municipal and Corporate Revolution [in Scotland.]" Blackw. 37:964 (1835.) See also Westm. 24:156 (1836). 16

——. "Municipal Home Rule for Scotland." Mun. J. 9:688 (Aug. 31, 1900). 17

"Township and Borough." Maitland, Frederic William. (With special reference to Cambridge, Eng.) Cambridge University Press, 1898. 8vo, 220 pp. Cl. 10s. 18

"Year Book of the United Kingdom for 1900, The Municipal." Donald, Robert. London, Edward Lloyd, 1900. (Issued annually.) 12mo, 526 pp. Cl. 2s. 6d. 19

"Allotments in England, Land." Lloyd, Caro. Outlook 59:428 (June 18, 1898). 20

——. "Garden Allotments." Crespi, Alfred J. H. Land M. Aug. 1899. 21

Baths, Washhouses, etc. "Have Our Public Baths Failed?" Mun. J. & London 8:1129 (Oct. 13, 1899). 22

——. "Public Washhouses in Great Britain." City Rec. 1:609 (Oct. 27, 1898). 23

Bibliography. "Literature of Local Institutions, The." Gomme, G. L. London, Elliot Stock, 1886. 248 pp. 24

——. Useful list of parliamentary papers in Fabian Bibliography, Fabian Tract 29, 1896.

——. (See also under History below.)

"Building, Building Leases, and Building Contracts, The Law of." London, Stevens & Haynes, 1885. 947 pp. 25s. 25

"Burial Grounds. Report from Select Committee. With proceedings, evidence, appendix and index." London, Eyre & Spottiswoode, 1898. 3s. 6d. 26

Charities. "Infant Life Protection Bill, Reports from the Select Committee on the." Parliamentary Reports and Documents, 1890. 104 pp. 27

——. "History of the English Poor Law." Vols. I and II, 924-1853 A. D. Nichols, George. Vol. III (Independent as well as supplementary to preceding) 1834-1898. Mackay, Thomas. London, King. 8vo, Vol. I and II, 30s., Vol. III, 21s. 28

——. "Modern Criticisms of the Poor Law." Phelphs, L. R. Econ. R. 7:374 (July, 1897). 29

——. Organization of Charities. "Papers on Charity Organization in Great Britain." Loch, C. S., and others. pp. 250-391 "International Congress," vol. III, 1893. See 43-99. 30

——. "Our Treatment of the Poor." (England.) Chance, W. London, P. S. King, 1899. 8vo, 240 pp. 2s. 6d. 31

——. "Poor Law, The." (History, administration, statistics, etc., of English Poor Law.) Fowle, T. W. London, Macmillan, English Citizen Series, 1893. 8vo, 175 pp. 2s. 6d. 32

——. "Poor Law Conferences Central and District." Papers published by P. S. King and Son, London. Annual bound volume containing papers read at all the Central and District Poor Law Conferences, 12s. Vol. for 1897-8, 8vo, 742 pp. Contained papers on assessment, agricultural labourers, barrack schools, boarding out, causes of pauperism, education, industrial training, infectious diseases, local taxation, lunatics, medical economics, nursing, orphans, out relief, overseers, rating schools, vagrants, workhouses. 33

——. "Poor Law Labour Homes." Buxton, Noel. Mun. J. & London 8:1343 (Dec. 15, 1899). 34

——. "Report from the Commissioners for Inquiry into the Administration and Practical Operation of the Poor Laws." (Evidence separate.) Parliamentary Papers and Documents, 1834. 8vo. cl. 3s. 34a

——. "Sixty Years of Poor Law." Vallance, William. London 6:574 (July 8, 1897). 35

——. "The English Poor Law: Its Intention and Results." McCallum, [Mrs.] May. p. 151 "International Congress." Vol. I, 1893. See 43-99. 36

——. "The English Poor Laws: Their History, Principles and Administration." (Three Lectures given at the University Settlement for Women, Southwark.) Lonsdale, Sophia. London, King. 8vo, paper, 1s. 37

——. "The English Poor Law System, Past and Present." (Translated by H. Preston-Thomas.) Aschrott, P. F. London, Knight, 1888. 8vo. 10s. 6d. 38

United Kingdom—*Continued.*

——. "The Parish Net, How it's dragged and what it catches." Bartley, George C. T. London, Chapman & Hall, 1875, 8vo, 260 pp. 6s. 6d. 39

——. "The Poor Law." Dodd, J. Theodore. p. 156 "Good Citizenship," edited by J. E. Hand. London, Geo. Allen, 1899. 474 pp. 40

——. "The Poor Law and Aged Poor." Nicholson, C. N. Mun. J. & London 8:1361 (Dec. 22, 1899). 41

"Civil Service in Great Britain, a History of Abuses and Reforms." Eaton, Dorman B. New York, Harper, 1880. 8vo, 469 pp. $2.50. 42

"Concerts, Municipal." City Rec. 1:118 (Feb. 24, 1898). 43

"Contracts, Town Councillors and." Mun. J. 9:963 (Dec. 7, 1900). 44

"Corporation Cases, American and English, a collection of corporation cases, private and municipal, decided in the courts of last resort in the United States, England and Canada." New York, Thompson, 1895. 3 vols., each $6.50. 45

Corruption, Corrupt Practices Acts. (See under Elections below.)

"Economics of Local Government, The." Cannan, Edwin. Mun. J. & London 9:53, 67 (Jan. 19, 26, 1900). 46

Elections, Corrupt Practices Acts, etc. "Caucus, The." anon. Sat. R. 61:210 (Feb. 13, 1886); Chamberlain, Joseph. Forum 30:721 (Nov. 1878). 47

——. "Caucus and Camorra." Trollope, T. A. National R. 4:842 (Feb. 1885). 48

——. "Caucus and Caucus." Sat. R. 59:810 (June 20, 1885). 49

——. "Caucus and its Consequences, The." Wilson, E. D. J. 19th Cent. 4:695 (Oct. 1878). 50

——. "Caucus and its Critics, The." Schnadhorst, F. 19th Cent. 12:8 (July, 1882). 51

——. "Caucus in England." Godkin, E. L. Nation 27:141 (Sept. 5, 1878). 52

——. "Caucus, A Defense of the." Sat. R. 54:7 (July 1, 1882).

——. "Caucus, Government by." Sat. R. 53:653 (May 27, 1882).

——. "Caucus a Necessity, Is the?" Macdonnell, J. Fortn. o. s. 44:780 (Dec. 1885). 53

——. "Corrupt Practices Act." Seager, J. R. London, P. S. King & Son, 1883. 8vo, 1s. 54

——. "Corrupt Practices Acts." Hutchinson, Joseph. Am. Law R. 27:345 (1893). 55

——. Corrupt Practices Bill. Buxton, S. C. Contemp. 39:753 (1881); James, H. Forum 15:129 (1893); anon. Blackw. 134:728 (1883); Sat. R. 56:489 (1883); Spec. 56:731, 1405 (1883), 57:1294 (1884). 56

——. "Corruption, Spread of, in England." Spec. 61:811 (1888). 57

——. "Electioneering Methods in England." No. Am. 155:338 (Sept. 1892).

——. "Law of Elections as Viewed in the Election Petitions of 1892." London, Hayman & Co., 2d ed., 1893. 2s.

——. "Rogers Law of Elections." (Vol. I, Registration; Vol. II, Elections and Petitions; Vol. III, Municipal Elections and Petitions. Day, H. S., Editor.) London, Stevens, 17th ed., 1894-5. 8vo. 21s. 58

——. "Notes on Registration." London, London Liberal and Radical Union, 1896. 1s. 59

——. "Powers, Duties and Liabilities of Election Agent and Returning Officer." Parker, F. R. London Knight, 2d ed., 1891. 8vo, 31s. 6d. 60

——. "Rogers on Elections." (See under Law above.) 61

——. "Suppression of Bribery in England." Jenks, J. W. Cent. n. s. 25:781 (March, 1894). 62

"Electrical Engineering and the Municipalities." Swinton, A. A. Campbell. 19th Cent. 47:297 (Feb. 1900). 63

——. Electric Lighting. (See under Lighting below.)

——. "Electric Power Distribution in Great Britain." Booth, W. H. Engng. M. 20:41 (Oct. 1900). 64

——. "Electrical Power Monopolies." Mun. J. 9:382 (May 18, 1900).

——. "Electric Power Bill, Lancashire." St. Ry. J. 16:192 (Feb. 17, 1900). 65

Engineering, Municipal. "The Legal Precedents of 1899 in Relation to Municipal Engineering." Conder, J. B. Reignier. Surveyor 17:60 (Jan. 26, 1900). 66

——. "A Survey of the Legislation of 1899 in connection with Municipal Engineer-

United Kingdom—*Continued.*

ing." Surveyor 17:71 (Jan. 26, 1900). 67

——. "Works Projected by Local Authorities for 1900." Surveyor 17:87 (Jan. 26, 1900).

Finance. "Audit of Public Accounts, On the." Rees, William. Transactions of the Manchester Statistical Society, May 9, 1866. 68

——. "Cost of Local Government in England." Craigie, F. G. J. Statis. Soc. 40:262 (1877). 69

——. "Dialogues on Taxation, Local and Imperial." Urquhart, W. P. Aberdeen, Longmans, G. & Co., 1867. 12mo, 168 pp. 3s. 6d. 70

——. "Distribution of Revenue between the Central Government and Local Authorities." Bastable, C. F. Econ. J. 9:541 (Dec. 1899). 71

——. "Ground Rents, Taxation of." Bastable, C. F. Econ. J. 3:255 (June, 1893); Williams, I. P. 19th Cent. 33:293 (Feb. 1893); anon. Mun. J. & London 8:1169 (Oct. 27, 1899), 9:1001 (Dec. 21, 1900.) 72

——. "Ground Rents and Building Leases." Sargant, C. H. London, Sonnenscheiñ, 1886. 8vo. 2s. 73

——. "The Taxation of Ground Values." Moulton, J. Fletcher. London, United Committee for the Taxation of Ground Rents and Values, 1889. Pamphlet. 16 pp. 74

——. "Town Holdings." (Taxation of Ground Rents and Building Land in England.) London, Cassell & Co., 1881. 331 pp. 2s. 75

——. "Growth and Incidence of Local Taxation in England." Murray, G. H. Econ. J. 3:698 (1893). 76

——. "History of Local Rates in England." Cannan, Edwin. London, Longmans, Green & Co., 1896. 12mo, 140 pp. 75 cts. 77

——. "Incidence of Urban Rates." Blunden, G. H. Econ. R. 1:486 (Oct. 1891). 78

——. "Urban Rating, being an Inquiry into the Incidence of Local Taxation in Towns, with special reference to current proposals for change." Sargant, Charles Henry. London, Longmans, G. & Co., 1890. 8vo, 162 pp. 79

——. "Inequality of Local Rates in England." Cannan, E. Econ. J. 5:22 (1895). 80

——. Loans. "Emprunts Municipaux en France et en Angleterre." Puibarand, L. Paris, Berger, L. et Cie., 1879. 1 fr. 50c. 81

——. "Local Administration and Taxation." J. Gas Light. 76:1389 (Dec. 4, 1900). 82

——. "Local Authorities and Income Tax." Mun. J. 8:1360 (Dec. 22, 1899). 83

——. "Local Debts and Government Loans." Ed. R. 153:548 (April, 1881), Sanitary Progress vol. 173 (Jan. 1891). 84

——. Local Finance in England. Pp.622-624, Vol. II, Palgrave. See 1-2. 85

——. "Local Finances of Great Britain." Blunden, G. H. Pol. Sci. Q. 9:78 (1894). 86

——. "Betrachtungen über das communal Finanzsystem in England." Artom, Ern. Turin, Vincenza Bona, 1894. 11 pp. 87

——. "Local Government and State Aid: an essay on the effect on local administration and finance of the payment to local authorities of the proceeds of certain imperial taxes." (England.) Chapman, Sydney J. London, Swan, S. & Co., 1899. 142 pp. 2s. 6d. 88

——. "Local Government and Taxation." Rathbone, William, Jr., and others. London, Sonnenschein, 1885. 12mo, 139 pp. 1s. 89

——. "Local Government and Taxation, and Goschen's Report." Baxter, R. Dudley. London, Buch, 1874. 3s. 6d. 90

——. "Local Taxation." Noble, John. London, P. S. King, 1876. 8vo, 162 pp. 91

——. "Local Taxation and Finance." Blunden, G. H. London, Swan & Co., 1895. 8vo, 136 pp. 2s. 6d. 92

——. "Local Taxation in England and Wales." Phillips, J. Roland. p. 465 "Local Government and Taxation in the United Kingdom." J. W. Probyn, editor. London & New York, Cassell, 1882. 5s. 93

——. "Local Taxation in Great Britain and Ireland." Palgrave, R. H. I. London, Murray, 1871. 8vo, 124 pp. 5s. 94

——. "Local Taxation, Scotland. Evidence before the Royal Commission 37th to 42d days, appendix and index." London, P. S. King & Son. 2s. 11d. 95

——. "Local Taxation: Some Recent Modifications of Our Rating System." Williams, W. M. J. London, P. S. King & Son, 1899. 8vo, 22 pp. Paper, 6d. 96

United Kingdom—*Continued.*

——. "Die Localbesteuerung." (England.) pp. 39-48 Ergänzungsheft to Adolph Wagner's Finanzwissenschaft. Leipzig, Winter, 1896. 8vo, 168 pp. Also pp. 345-365 of his Finanzwissenschaft. 3 Theil. Leipzig, Winter, 1889. 8vo, 916 pp. 97

——. "Rating of Public Companies, The." Wilkins, H. J. Gas Light. 76:106 (July 10, 1900). 98

——. "Report of Poor Law Commission on Local Taxation." London, W. Clowes & Sons, 1844. 8vo, 360 pp. 99

——. "Reports and Speeches on Local Taxation." Goschen, G. J. London, Macmillan, 1872. 8vo, 218 pp. 5s. 100

——. "Taxation, Local and Imperial, and Local Government." Graham, J. C. (Third edition by Marmington, M. D.) London, P. S. King & Son, 1899. 12mo, 122 pp. Cl. 2s. 1

——. Water Undertaxings, Taxation of. (See under Water below.)

"Fire Brigades." Fire & W. 23:60 (Feb. 19, 1898).

Fire Insurance in England, Municipal. "Creation d'Assurances Municipal contre l'Incendie en Angleterre." Artibal, J. R. Municipale 3:1903 (Feb. 10, 1900). 2

"Garbage Disposal in England." Fuertes, James H. Engng. N. July 2, 1896. 3

——. "Garbage as Fuel for Electric Light Stations, English Experience with." Campbell, A. H. Engng. News 42:21 (July 13, 1899). 4

Gas Lighting. (See under Lighting below.)

History. "Bibliography of British Municipal History, Including Gilds and Parliamentary Representation." Gross, Charles. New York, Longmans, Green & Co., 1897. 8vo. 461 pp. $2.50. 5

——. "An Essay on English Municipal History." Thompson, James. London, Longmans, 1867. 8vo. 5s. 6

——. "An historical treatise of cities and burghs or boroughs. Showing their original, and whence and from whom they received their liberties, privileges and immunities, etc., etc." (A partisan work attempting to justify the measures of Charles II. and James II. against municipal corporations.) London, 1st ed., 1690, 2d. ed., 1704. Account and criticism of this work in Merewether and Stephens, Vol. III, pp. 1900-1938. 7

——. "An Introduction to English Economic History and Theory." (In Pt. I, Merchant and Craft Guilds.) Ashley, W. J. New York, Putnam, 1889. 8vo, $1.50. 8

——. "Boroughs, Origin of the." Maitland, F. W. Eng. Hist. R. 11:13 (1896). 9

——. "Boroughs in the Reign of John, The English." Ballard, A. English Historical R. 14:93 (Jan. 1899). 10

——. "Cinque Ports." (Hastings, Sandwich, Dover, Romney and Hythe, History of.) Burrows, Montagu. Historic Towns Series. London, Longmans, 1888. 8vo. 3s. 6d. (For historical bibliography of the Cinque Ports see p. 110 of Gross' Bibliography of British Municipal History.) (See No. 5 above.) 11

——. "Constitutional History of England in its Origin and Development." Stubbs, William. (For general sketch of municipal history to end of 15th Century see §§ 44, 131, 165, 211-14, 218, 219, 422, 484.) Oxford, Clarendon Press, 5th ed. 1896. 8vo, 3 Vols. 12s. each. 12

——. Decay of Mediæval Towns in England. p. 552, Vol. III, Palgrave. See 1-2. 13

——. "Domesday Book and beyond." (Account of the boroughs just after the Norman Conquest, pp. 172-219.) Maitland, F. W. Cambridge University Press, 1897. 8vo, 542 pp. 15s. 14

——. "English Municipal Institutions; their growth and development from 1835-79, statistically illustrated." Vine, John, and Somers, Richard. London, Waterloo, 1879. 8vo, 272 pp. 10s. 6d. 15

——. "L'Evolution des Institutions communaux en Prusse et en Angleterre." Paul-Dubois, L. Rev. Pol. et Par. Aug. 1897. 16

——. "Firma burgi, or an historical essay concerning the cities, towns and boroughs of England, taken from records." Madox, Thomas. London, 1726. 17

——. "Gild Merchant, a contribution to British municipal history." Gross, Charles. New York, Macmillan, 1890, 2vols, 8 vo, 332, 447 pp. $6. (The same writer gives a sketch of the general history of gilds in Palgrave, Vol. II, p. 209. See 1-2.) 18

——. "History of Boroughs and municipal corporations of the United Kingdom." Merewether, H. A., and Stephen, Archibald. London, Stevens, 1835. 3 vols. 8vo. 19

United Kingdom—*Continued.*

——. Ireland. "Law of Election in the ancient cities and towns of Ireland traced from original records." Lynch, William. London, E. Wilson, 1831. 8vo. 6s. 20

——. Ireland. "An Inquiry into the ancient corporate system of Ireland, and suggestions for its immediate restoration and extension." Gale, Peter. London and Dublin, Bentley, 1834. 8vo. 12s. 21

——. Irish Municipal History, Bibliography of. pp. 114-123 of Gross, British Municipal History. 22

——. "Scottish Municipal Heraldry." Scottish R. 31:1 (Jan. 1898).

——. Scottish Municipal History, Bibliography of. pp. 123-146 of Gross' British Municipal History. 23

——. "Select Charters and other illustrations of English constitutional history from the earliest times to the reign of Edward the First." Stubbs, William. (Contains extracts from a number of early English borough charters.) Oxford, 8th ed., 1895. 8vo. 8s. 6d. 24

——. "Self-government in towns." (Condition of English boroughs since 1835.) Picton, J. A. Contemp. 34:678 (1879). 25

——. "Town Life in the Fifteenth Century." Green, Mrs. J. R. London, Macmillan, 1895. 2 vols. 8vo, 441, 476 pp. 32s. 26

——. "Towns and Roads in the Thirteenth Century, English." Law, Alice. Econ. R. 7:289 (July, 1897). 27

——. Wales. References on the Municipal History of Wales. p. 146 of Gross' British Municipal History. 28

Housing. "Block Buildings; The Associated and Self-Contained Systems." Spalding, Henry. In "Working Class Dwellings." London, P. S. King & Son, 1900. 4to. 2s. 6d. 29

——. "Church Congress, The Housing Question at the." San. Rec. 26:293 (Oct. 5, 1900).

——. "Consideration of Practical Difficulties as regards Building." Lander, H. C. Fabian Tract No. 101, pp. 27-31. London, Fabian Society, 1900. 8vo, 50 pp. 1d. 30

——. "Effects of Injudicious Legislation." Honeyman, John. In "Working Class Dwellings." London, P. S. King & Son, 1900. 4to. 2s. 6d. 31

——. "Fen Districts, The Housing Question in the." Cochrane, Constance. San. Rec. 26:567 (Dec. 28, 1900). 32

——. "Free Homes for the People." Boulter, Stanley. (A scheme by which English municipalities shall be empowered to advance to the working classes the necessary money to purchase their houses, the advances to be repaid by installments, instead of rent.) Ill. Carpenter & Builder (London) June 11, 1897. 33

——. "House Famine and How to Relieve it, The." (Seven papers and a Bibliography.) Fabian Tract No. 101. London, Fabian Society, 1900. 8vo, 50 pp. 1d. 34

——. "Houses for the People: A Summary of the Powers of Local Authorities under the Housing of the Working Classes Act, 1890, and the use which has been and can be made of them." London, The Fabian Society, May, 1897. Fabian Tract No. 76, 16 pp. 1d. 35

——. "Housing of the Poor in England, Existing Law on." Arnold-Forster, H. O. 19th Cent. 14:940 (1883). 36

——. "Housing of the Working Classes Act 1890, and Amending Acts, annotated and explained together with the statutory forms and instructions." Allan, Charles E. London, Butterworth & Co., 1898. 8vo, 186 pp. Cl. 37

——. "Housing of the Working Classes Act 1890." (English. Notes, introduction, forms prescribed under the act, all existing enactments on the subject, tables of cases and index.) Bernard, W. C. and H. Morgan-Brown. London, Butterworth, 1891. 8vo, 188 pp. 38

——. "Housing of the Working Classes Act." Allan, C. E. London, Butterworth, 1899. 8vo, 215 pp. Cl. 7s. 6d. 39

——. Housing of the Working Classes Act. "Suggestions for Improving Part II of the Act." Holder, W. Mun. J. 9:611 (Aug. 3, 1900). 40

——. "Housing of the English Poor." Monkswell, Lord. No. Am. 165:52 (July, 1897). 41

——. "A New Housing Policy." Blashill, Thomas. Mun. J. & London 8:1177 (Oct. 27, 1899). 42

United Kingdom—*Continued.*

——. "Arbeiterwohnungsfrage in England." Aschrott, P. F. pp. 93-147 Hft. 30, Schr. d. Ver. f. Socialpolitik. 43

——. "Der Gegenwärtige Stand der Wohnungsfrage in England." Bernstein, Eduard. Ar. Soc. Gesetz. u. Stat. 15:616 (Nos. 5-6.) 44

——. "Die Wohnungsnot und Wohnungsreform in England mit besonderer Berücksichtigung der neueren Wohnungsgesetzgebung." v. Oppenheimer, Fel. Leipzig, 1900. 8vo, 167 pp. 4m. 45

——. "Ireland, Congested Districts Board of." Russel, T. W. Fortn. 62:61 (1894). 46

——. "Lodging Houses, Municipal." Mun. J. 9:800, 852 (Oct. 12, 26, 1900).

——. "Lodging Houses and their Bye-Laws, Common." Maconnachie, George. San. Rec. 20:224, 253 (Aug. 27, Sept. 3, 1897). 47

——. "Overcrowding in the North Country." Mun. J. & London 8:769 (June 30, 1899).

——. "Overcrowding, The Facts as to Urban." Bowmaker, Edward. Fabian Tract No. 101, pp. 10-14. London, Fabian Society, 1900. 8vo, 50 pp. 1d. 48

——. "Removal of Insanitary Areas and the Management of Improvement Schemes under the Housing of the Working Classes Act." Addie, Peter. Sanitarian 42:19 (Jan. 1899), J. San. Inst. 20:11 (April, 1899). 49

——. "Report of Her Majesty's Commission on the Housing of the Working Classes in England and Wales." Parliamentary Reports and Documents, 1885. 728 pp. 49a

——. "Rise of the Suburbs." (English.) Low, Sidney J. Contemp. 60:544-558 (Oct. 1891). 50

——. "Rural Districts, Bad Housing in." Edwards, Clement. Fabian Tract No. 101, pp. 3-6. London, Fabian Society, 1900. 8vo, 50 pp. 1d. 51

——. "Sanitary Inspectors and the Houses of the Poor." Fyfe, Peter. San. Rec. 26:204 (Sept. 7, 1900). 52

——. "Sanitation of Dwellings in England, The." Fletcher, Banister F. Arch. Rec. 8:407 (June, 1899). 53

——. "Scotland and Ireland, Report of her Majesty's Commission on the Housing of the Working Classes in." Parliamentary Reports and Documents, 1885. 2 vols, 171 and 110 pp. 54

——. "Workmen's Dwellings as they are." Fireside Nov. 1900.

Ireland. (See under General References, History, Housing, Lighting, Police.)

Labor. "Sweating in the United Kingdom." Schloss, D. F. Am. J. Soc. Sci. 30:65 (1892). 55

"Libraries of Greater Britain, The." Boosé, J. R. Library 1:123 (Dec. 1899). 56

Lighting, Directory. "Gas and Electric Lighting Works: Directory and Statistics." London, Hazell, Watson and Viney. Issued annually, 23d issue, 1899. 383 pp. 6s. 57

——. "Electric Lighting." (Latest Rules of English Board of Trade in regard to the procedure for obtaining a provisional order or licenses.) London, Butterworth, 1898. 15s. 58

——. "Electric Lighting in Great Britain, The Commercial Aspects of." Hammond, Robert. Engng. M. 16:624 (Jan. 1899). 59

——. "Electric Light in Ireland." Mun. J. 9:721 (Sept. 14, 1900).

——. "Electric Lighting Plants, Statistics on English." D'Oyly, Claud P. Elec. Eng. 25:157 (Feb. 10, 1898), 25:393 (April 14, 1898), 25:425 (April 21, 1898), 25:482 (May 5, 1898). 60

——. "Electric Lighting and Energy, Law relating to." Will, J. S. London, Butterworth, 2d ed., 1900. 8vo. 17s. 6d. 61

——. "Electrical Undertakings, The Common Law Liabilities of." Engng. 70:20 (July 6, 1900).

——. "Electricity in Small Towns." Boot, Horace. Mun. J. 9:783 (Oct. 5, 1900); anon. Mun. J. & London 8:640 (May 26, 1899). 62

——. Garbage as Fuel for Lighting Plants. (See under Garbage above.)

——. "Gas Affairs, English." Child, W. D. Prog. Age 16:480 (Oct. 15, 1898); Ritson, T. N. Prog. Age 18:142 (April 2, 1900). 63

——. Gas. "Authorized Gas Undertakings in the United Kingdom." Board of Trade J. 26:48 (Jan. 1899). 64

United Kingdom—*Continued.*

——. Gas. "The Cost of Coal Gas in England." Humphreys, Norton H. Am. Gas Light J. 73:3 (July 2, 1900). 65

——. "Gas Engineer's Annual and Directory of Gas Undertakings." (20th year.) Hastings, Charles W. Birmingham, J. G. Hammond & Co., 1899. 8vo, 120 pp. Cl. 4s. 66

——. Gas. "Illuminating Power as Exhibited in the Parliamentary Returns." Newbigging, Thomas. J. Gas Lighting Dec. 1, 1896, discussion Dec. 8, 1896. 67

——. "Gas Lighting in Great Britain." Maltbie, Milo Roy. Mun. Aff. 4:538 (Sept. 1900). 68

——. "Gas, Price of, in England." Schoenhof, J. U. S. Consular Reports No. 75, 1887, p. 535. 69

——. "Gas Statistics, English." Prog. Age 16:312 (July 1, 1898).

——. "Gas Statistics, Illuminating." Still, A. J. of Finance 5:207 (March, 1899). 70

——. "Gas Supplies, Municipal." Mun. J. & London 8:1141 (Oct. 20, 1899).

——. "Gas Undertakings Returns, The." J. Gas Light. 72:1470 (Dec. 27, 1898). 71

——. "Gas Undertakings in England, Scotland and Ireland, for the year 1897, an ana'ysis of the accounts of the principal." Field, John W. London, Eden Fisher & Co., 1898. 34 pp. Pamphlet, 15s. 72

——. "Gas Undertakings, The Purchase of." Browne, Frank Balfour. J. Gas Light. 73:1028 (Nov. 8, 1898). 73

——. "Gas World Year Book, The." Douglas, John. London, John Allen & Co., 1899. 8vo, 213 pp. Cl. 7s. 7d. 74

——. "Gas Works in Ireland, Impressions of Small." Griffith, Percy. Am. Gas Light. J. 73:402 (Sept. 10, 1900). 75

——. "Law of Gas, Water and Electric Lighting." Will, J. Shirless. London, Butterworth, 1894. 8vo. 32s. 76

"Liquor Interests in English Politics, The." Porritt, Edward. Chaut. 28:554 (Mch. 1899). 77

——. "Liquor Problem in England." Hrprs. Wkly. 41:424 (April 24, 1897). 78

——. "Municipal Public Houses." Mun. J. 9:984 (Dec. 14, 1900).

——. "Temperance Problem and Social Reform." Rowntree, Joseph; Sherwell, Arthur. (7th ed.) New York, Truslove Hansom and Comba, 1900. 8vo, 784 pp. Cl. $4. 79

"Literary and Municipal Problems in England." Harrison, Frederic. Forum 14:644 (1893). 80

Lodging Houses. (See under Housing above.)

Municipal Control, Municipal Ownership, General. "Municipal Finance and Municipal Enterprise." Fowler, H. H. London, P. S. King & Son, 1900. 8vo, 25 pp. Paper, 1s., same, J. Royal Stat. Soc. 63:383 (Sept. 1900). 81

——. "Municipal Ownership in England, Private and." Raworth, J. S. Prog. Age 16:562 (Dec. 1, 1898). 82

——. "Municipal Plants in Great Britain." City Govt. 6:143 (June, 1899).

——. "Municipal Socialism in England." Ann. Am. Acad. Pol. Sci. 16:147 (Sept. 1900). 83

——. "Municipal Trading." Anon. Mun. J. 9:314 (April 20, 1900); Ty. & Ry. World 9:196 (May 20, 1900); Surveyor 17:617 (June 8, 1900), 18:17 (July 6, 1900), 18:44 (July 13, 1900), 18:76 (July 20, 1900), 18:116 (July 27, 1900). 84

——. "Municipal Trading, The Attack on." Rollitt, Albert. Mun. J. 9:269 (April 6, 1900). 85

——. "Municipal Trading, Board of Trade and." Mun. J. 9:406 (May 25, 1900). 86

——. "Municipal Trading, The Cost of." (Against municipal ownership in England.) Davies, Dixon H. London, P S. King & Son. 71 pp. 5 explanatory diagrams. 2s. 87

——. "Municipal Trading, Mr. Joseph Chamberlain on." Mun. J. 9:643 (Aug. 17, 1900).

——. "Municipal Trading, Parliament and." Mun. J. 9:409 (May 25, 1900), 9:429 (June 1, 1900), 9:489 (June 22, 1900), 9:503 (June 29, 1900), 9:523 (July 6, 1900), 9:549 (July 13, 1900), 9:572 (July 20, 1900), 9:591 (July 27, 1900), 9:604 (Aug. 3, 1900), 9:632 (Aug. 10, 1900). 88

——. "Municipal Trading, The Parliamentary Committee on." J. Gas. Light. 75:1503 (June 5, 1900), 76:33 (July 3, 1900), 76:94 (July 10, 1900), 76:166 (July

United Kingdom—*Continued.*

17, 1900), 76:226 (July 24, 1900). 89

——. "Municipalities at Work." Dolman, F. London, Methuen & Co., 1895. 143 pp. $1. (Chapters on Birmingham, Manchester, Liverpool, Glasgow, Bradford and Leeds.) 90

——. "Municipalism, The British Association and." J. Gas. Light. 76:692 (Sept. 18, 1900). 91

——. "Le Socialisme Municipal en Angleterre." François, M. G. Jour. des Economistes 36:382 (1896). 92

——. "Städteverwaltung und Municipalsozialismus in England." Hugo, C. Stuttgart, J. H. W. Dietz, 1897. 8vo, 312 pp. 2m. 50 pf. 93

Municipal Control, etc. Lighting. "Attacks on Municipal Electricity." Hammond, Robert. Mun. J. & London 8:40 (Jan. 12, 1899); anon. Mun. J. & London 8:11 (Jan. 5, 1899), 9:5 (Jan. 5, 1900), 9:52 (Jan. 19, 1900), 9:141 (Feb. 23, 1900). 94

——. "Municipal Electricity." Mountain, A. B. Mun. J. 9:484 (June 22, 1900). 95

——. "Municipal Electrical Untertakings in 1899." Surveyor 17:76 (Jan. 26, 1900).

——. Municipal Gas Plants in Great Britain. Maltbie, Milo Roy. Mun. Aff. 4:538 (Sept. 1900). 96

——. "Municipal Gas Profits." Mun. J. & London 8:20 (Jan. 5, 1899).

——. "Municipal Gas Works in Great Britain." City Govt. 7:7 (July, 1899). 97

——. "The Purchase of Gas and Water Works with the latest statistics of Municipal Gas and Water Supply." Silverthorne, Arthur. London, Crosby, Lockwood & Co., 1881. 8vo, 131 pp. 5s. 6d. 98

Municipal Control, etc. Telephones. Hunter, Thomas. Mun. J. & London 8:1289 (Dec. 1, 1899); anon. Elec. Eng. 26:106 (Aug. 4, 1898); Mun. J. & London 8:765, 1292 (June 30, Dec. 1, 1899). 99

——. "Report from the Select Committee on Telephones." (Parliamentary Committee, England.) 4to, 659 pp. Paper, $1.50. 100

Municipal Control, etc. Transit Facilities. "Control of Tramways in England." City Government 1:38 (1896). 1

——. "Corporation Tramways and the Rates." Ry. World 7:270 (Aug. 4, 1898). 2

——. "Cost of Operating Municipal Electric Tramways." Surveyor 18:273 (Sept. 7, 1900).

——. "Municipal Electric Tramways." Mun. J. 9:891 (Nov. 8, 1900).

——. "Municipal Ownership of Tramways in the United Kingdom, The." Ackworth, W. M. Railroad Gaz. 29:400 (June 4, 1897); Taylor, Benjamin. Cassiers' 16:381 (Aug. 1899). 3

——. "Municipal Ownership and Operation of Street Railways in England, Statement in Relation to." Porter, Robert P. Appendix E in Report of the Special Committee on Street Railways (Mass.) Boston (1898). 4

——. "Municipal Tramways and Foreign Contracts." Mun. J. 9:444 (June 8, 1900).

——. "Street Railways in British Towns: Municipal Systems compared with Company Enterprises." Donald, Robert. Mun. Aff. 4:31 (March, 1900). 5

——. "The New Development in Municipal Trams." Mun. J. & London 8:103 (Jan. 26, 1899).

——. "Tranvie Municipali in Inghilterra." Critica Sociale 10:302 (Oct. 1, 1900). 6

Municipal Control, etc. Waterworks. Ann. Am. Acad. Pol. Sci. 14:143 (July, 1899). 7

——. "Municipal Ownership of Water Works in England and Wales." Engng. News 42:63 (July 27, 1899). 8

——. "The Terms of Purchase of Municipal Water Undertakings." (List of county boroughs in which water works have been purchased, dates, terms, conditions, etc. Prepared by order of the London County Council.) Jour. Gas Lighting (London) Feb. 16, 1897. 9

"Parliament, Municipal Men in." Mun. J. 9:851 (Oct. 26, 1900). 10

——. "The Municipality in Parliament: New Powers Demanded by Corporations." Mun. J. 9:1003, 1023 (Dec. 21, 28, 1900).

Police. "Executive Powers in relation to crimes and disorder; or Powers of Police in England." Haycraft, Thomas Wagstaff. London, Butterworth, 1897. 8vo, 144 pp. 6s. 11

——. "A Problem of Municipal Police." Mun. J. & London 8:101 (Jan. 26, 1899).

United Kingdom—*Continued.*

——. Ireland. "The Policeman's Manual." Reed, Andrew. Dublin, Alex, Thom & Co., 1898. 265 pp. 12

——. "Report of the Commissioners appointed to inquire as to the best means of establishing an efficient Constabulary Force in the Counties of England and Wales." Parliamentary Papers and Documents, 1839, vol. 19. 12a

——. Scotland. "The Burgh Police Act, 1892." Muirhead, James. Scottish Law Review 8:317, 9:234 (1892, 1893). 13

"Population of Cities of England." Humphries, N. A. J. Statis. Soc. 54:311 (1891). 14

——. "Alleged Depopulation of the Rural Districts." Ogle, W. J. Statis. Soc. 52:205 (1889). 15

——. "Decrease of Rural Population in England." Longstaff, G. B. J. Statis. Soc. 56:380 (1893). 16

——. "Distribution of Towns and Villages in England." Chisholm, Geo. C. Geographical J. 10:511 (Nov. 1897). 17

——. "Growth of Our Great Cities, The." Leisure Hour Feb. 1900.

"Private Bill Legislation." Ed. R. 189:76 (Jan. 1899); Ty. & Ry. World 9:311 (July 5, 1900). 18

——. "Guide to the Procedure upon Private Bills together with forms, standing orders of the House of Commons, etc." Dodd, Cyril, and Wilberforce, H. W. W. London, Eyre and Spottiswoode, 1898. 8vo, 360 pp. 7s. 6d. 19

——. "History of Private Bill Legislation." Clifford, Frederick. London, Butterworth, vol. I, 1885; vol. II, 1887. 2 vols, 8vo. Vol. I, 20s; vol. II, 35s. 20

"Rifle Ranges, Municipal." Bradley, J. W. Mun. J. & London 9:65, 283 (Jan. 26, April 13, 1900). 21

Sanitation. "English Sanitary Institutions, in their development and political and social relations." Simon, John. London, Smith & E., 2d ed., 1897. 8vo, 536 pp. 18s. 22

——. "Law Relating to Public Health, Local Government and Urban and Rural Sanitary Authorities." Glen, W. C. and A. London, Knight, 10th ed., 1888. 45s. 23

——. "Lectures on Sanitary Law." Blyth, A. Wynter. London, Macmillan, 1893. 8vo, 279 pp. 8s. 6d. 24

——. "Public Health Progress in the Queen's Reign." (1837-1897.) Bailey, T. Ridley. San. Rec. 21:39 (Jan. 14, 1898), 21:65 (Jan. 21, 1898), 21:118 (Feb. 4, 1898). 25

——. "Report of the Commissioners for inquiring into the State of Large Towns and Populous Districts." Parliamentary Papers and Documents, 1844, vol. 17; 1845, vol. 18.

——. "Reports of the Royal Sanitary Commission." Parliamentary Papers and Documents, 1870, vol. 32; 1871, vol. 35.

——. "Report on the Sanitary Condition of the Labouring Population of Great Britain." Parliamentary Papers and Documents, 1843, vol. 12.

——. "Sanitary Advances in Municipal Engineering in England." Boulnois, H. Percy. Mun. Engng. 14:21 (Jan. 1898). 26

——. "Sanitary Inspector's Handbook." Taylor, A. London, Lewis, 1897. 8vo, 348 pp. 5s. 27

——. "Sanitary Legislation in England since 1875." Calkins, G. N. Am. Statis. Assoc. 2:297 (1891). 28

——. "Les Mesures Sanitaires en Angleterre depuis 1875 et leurs Resultats." Monod, Henri. Revue d'Hygiène Vol. 13, 1891. 29

——. "Twenty Years Sanitation in an Urban District." Young, James. San. Rec. 20:576 (Nov. 26, 1897). 30

Schools. "English National Education: A Sketch of the Rise of Public Elementary Schools." Holman, H. London, Blackie & Son, 1898. 12mo, 256 pp. Cl. 2s. 6d. 31

——. "Education Authority and Municipal Boroughs." Porritt, E. Westm. Rev. 148:558 (Nov. 1897). 32

——. "History of the Elementary School Contest in England." Adams, F. London, Chapman, 1882. 8vo. 6s. 33

——. "Report of the Commissioners appointed to inquire into the State of Popular Education in England." Parliamentary Papers and Documents, 1861, vol. 21, six parts.

United Kingdom—*Continued.*

——. "Report of the Royal Commission appointed to inquire into the working of the Elementary Education Acts." Parliamentary Papers and Documents, 1886, vol. 25; 1887, vols. 29, 30; 1888, vols. 35-7.

——. "Reports on Elementary Schools (1852-1882.)" Arnold, Matthew. London, Macmillan, 1893. 3s. 6d. 34

——. "Studies in Secondary Education." Acland, A. H. D., and Smith, H. London, Percival, 1892. 7s. 6d. 35

——. "The State in Relation to Education." Craik, H. London, Macmillan (English Citizen Series), 1893. 2s. 6d. 36

Scotland. (See under General References, Finance, History, Lighting, Police.)

Settlements. "University Settlements in England." King, Joseph. Zeit. Staatswissen. 53 Jahrg. 3 Hft. p. 559 (July, 1897), Schweiz. Zeitschrift f. Gemeinnützigkeit, 34 Jahrg. 2 Hft., 1895. 37

Sewerage, Sewage Disposal. Bacterial Treatment of Sewage in England. Easby, William, Jr. Pro. Eng. C. 17:133 (July, 1900), Surveyor 18:84 (July 20, 1900), Engng. Rec. 42:78 (July 28, 1900), 42:108 (Aug. 4, 1900); Kinnicutt, Leonard P. J. Assoc. Engng. Soc. 24:107 (Feb. 1900); Thudichum, George. Surveyor 18:110 (July 27, 1900), Engng. Rec. 42:124 (Aug. 11, 1900). 38

——. "Duties of Sanitary Authorities in Relation to Sewerage." Stephens, J. E. R. San. Rec. 25:288 (April 6, 1900). 39

——. "Joint Sewerage Scheme, Stalybridge and Dukinfield." Surveyor 18:492 (Oct. 26, 1900). 40

——. "Local Government Board and Sewage Disposal Schemes." San. Rec. 23:559 (June 30, 1899).

——. "Purification of Sewage in England." Alvord, John W. Mun. Engng. 14:262 (May, 1898); Fowler, Gilbert J. Mun. Engng. 19:262 (Oct. 1900). 41

——. "River Pollution in England." (Pollution of the Irwell and Mersey by manufacturer's and sewage discharges. Action taken in the matter.) Fire and W. Jan. 23, 1897. 42

——. Sewage Disposal in England. Maxwell, Wm. H. San. Rec. 20:632 (Dec. 10, 1897); Shenton, Henry C. H. San. Rec. 26:519 (Dec. 14, 1900); Thompson, T. Kennard. Engng. M. 1:831 (1891); anon. San. Rec. 21:368 (April 8, 1898), 22:558 (Nov. 25, 1898), 25:352 (April 27, 1900), 26:565 (Dec. 28, 1900); Engng. Rec. 38:429, 560 (Oct., Nov. 1898); Surveyor 18:512 (Nov. 2, 1900). 43

Special Legislation. (See under Private Bill Legislation above.)

Street Cleaning. "Municipal Cleansing in Great Britain." Engng. News 43:272 (April 26, 1900). 44

Street Railways. (See under Transit Facilities below.)

"Street Works Act, 1892, Private." San Rec. 23:45 (Jan. 20, 1899).

Sweating. (See under Labor above.)

Taxation. (See under Finance above.)

Telephones, Municipal Ownership of, in England. (See under Municipal Control, Municipal Ownership above.)

Transit Facilities. "Accounts, Forms of Tramway." Ty. & Ry. W. 9:602 (Dec. 6, 1900). 45

——. "Accounts Electric Tramway." Ty. & Ry. World 9:501 (Oct. 11, 1900).

——. "British Street Cars." Curtis, William E. St. Ry. R. 7:582 (Sept. 15, 1897). 46

——. "British Tramway Development." Robinson, J. Clifton. Cassier's 17:279 (Feb. 1900). 47

——. Electric Tramways and Electric Traction in Great Britain. Blackwell, Robert W. Cassier's 16:283 (Aug. 1899); Boyle, James. St. Ry. R. 9:53 (Jan. 15, 1899), Sci. Am. 47:19372 (Feb. 25, 1899), U. S. Cons. Rep. 59:268 (Feb. 1899); Robinson, J. C. Engng. Times Nov. 1900; Short, Sidney H. St. Ry. J. 15:663 (Oct. 1899); anon. St. Ry. R. 8:304 (May 15, 1898), 9:257, 599 (April 15, Sept. 15, 1899); Railroad Gaz. 30:321, 847 (May 6, Nov. 25, 1898), 31:281 (April 21, 1899); St. Ry. J. 16:191 (Feb. 17, 1900). 48

——. "Electric Tramways and British Industry." Hill, Hawthorne. Ir. Age Nov. 23, 1899. 49

——. "Electric Traction under British Conditions, The Calculation of Distributing Systems of." Sayers, H. M. Brit. Inst. of Elec. Engs. May 3, 1900; St. Ry. J. 16:599 (June 30, 1900). 50

——. "Electric Traction in Great Britain, Commercial Aspects of." Garcke,

United Kingdom—*Continued.*

Emile. Engng. M. 17:45 (April, 1899). 51

——. "Electrical Energy on English Street Railways, Cost of." St. Ry. J. 16:505 (May 19, 1900). 52

——. "Electrical Tramway Construction in England, Recent." Lomas, Harold. Elec. World 31:143 (Jan. 29, 1898), 31:180 (Feb. 5, 1898). 53

——. "Electric Street Traction in England, Legal Aspects of." Knox, E. F. Vesey. Engng. M. 16:25 (Oct. 1898). 54

——. "Electric Tramways, The Principal Features of." Surveyor 17:40 (Jan. 19, 1900). 55

——. "Electric Traction in the United Kingdom, The Prospects of." Ty. & Ry. World 9:312 (July 5, 1900). 56

——. "Electric Railways, Working Expenses of English." Ry. World 6:269 (Sept. 1897).

——. "Fares, Tramway." Geron, H. Ty. & Ry. World 9:520 (Oct. 11, 1900). 57

——. Finance. "Municipal Tramways Finance." Mun. J. 9:589 (July 27, 1900).

——. "First English Tramway, The." Mun. J. 9:477 (June 22, 1900).

——. "Legislation, Tramway and Electric Railway." Ry. World 7:123 (April 7, 1898), 7:197 (June 2, 1898), 8:69 (Feb. 9, 1899), 8:345 (Sept. 7, 1899), 9:72 (Feb. 8, 1900). 58

——. "The Tramways Act of 1870." Ry. World 6:340 (Nov. 1897).

——. "The Tramways Act 1870 with introduction, notes, Board of Trade Rules, forms of By-laws and Provisional Order, List of Tramways." Phillips, Geo. I. London, Reeves and Turner, 1890. 8vo, 152 pp. 5s. 59

——. "Tramway and the Light Railways Act." Ry. World 7:221 (July 7, 1898).

——. "Light Railways." Bryce, James. Ty. & Ry. World 9:30 (Jan. 11, 1900). 60

——. "Light Railways as Tramways." London 7:329 (May 26, 1898).

——. "Light Railway Commission, The Work of the." Scotter, R. H. Ty. & Ry. W. 9:458 (Sept. 6, 1900). 61

——. "Manual of Electrical Undertakings." (Telegraph, Telephone, Electricity Supply, Electric Traction, Electrical Manufacturing and miscellaneous electrical undertakings in Great Britain.) Garcke, Emile. London, Donington House, Norfolk St. Published annually. Fourth ed. for 1899-1900, 1036 pp. 12s. 6d. 62

——. "Manual of Tramways, Omnibuses and Electric Railways containing abstracts of accounts, directory of directors, officials, firms and individuals connected therewith, and extract of tramways act and bye-laws." Duncan. London, Whiting and Sons, 22d ed., 1899. 12mo, 428 pp. Cl. 3s. 6d. 63

——. "Monopoly, A New Tramway." Donald, Robert. Contemp. 76:174 (Aug. 1899). 64

——. Municipal Control, Municipal Ownership of Street Railways. (See under Municipal Control, Municipal Ownership above.)

——. "Profits on Railway Undertakings." Gadsby, Charles H. Ty. & Ry. W. 9:462 (Sept. 6, 1900). 65

——. "Street Railways of Great Britain." Martin, Rufus. St. Ry. Jour. Nov. 1889. 66

——. Tramways Act. (See under Legislation above.)

——. "Tramways in England." Smith, William R. U. S. Consular Report No. 135, 1891. pp. 453-60. 67

——. "Tramway Companies' Reports." Ry. World 7:312 (Sept. 1898). 68

——. "Tramway Schemes, New." Mun. J. 9:284 (April 13, 1900). 69

——. "Wages of Tramway Employees." Ty. & Ry. W. 9:570 (Nov. 8, 1900). 70

Unemployment. "Die Arbeitslosenfrage im Licht der englischen Erfahrungen." v. Nostitz, Hans. Jr. Gesetz. Ver. Volks. 2:1279-1323 (1896). 71

——. "Die Arbeitslosen-Versicherung der Englischen Gewerkvereine." Schweiz. Bl. June, Aug. 1894. 72

——. "English Cities and the Unemployed." Porritt, E. Char. R. 3:373 (1894). 73

——. "Die Fürsorge für die Arbeitslosen in England." v. Heckel, Max. Jr. Natl. Stat. 63:265-282 (1894). 74

——. "Das Problem der Arbeitslosigkeit in England." Loew, Emil. Ar. Soc. Gesetz Stat. 9:79 (1896). 75

——. "Die Statistik über Arbeitslose in England." Barnreither. Ar. Soc. Gesetz. Stat. 1:43 (1888). 76

United Kingdom—*Continued.*

——. "Unemployed in England, The." Murray's Mag. 2:596, 749 (1887). 77

Vacant City Lots, Cultivation of. (See under Allotments above.)

Wales. (See under General References, Finance and History above.)

Washhouses. (See under Baths, etc., above.)

"Water Works in England." Smyth, William R. U. S. Consular Report No. 135, 1891, pp. 453-60. 78

——. "Charges, Water and Gas." Carter, James. Mun. J. & London 8:1360 (Dec. 22, 1899). 79

——. "Consumption and Waste of Water in Great Britain." Engng. Rec. 40:148 (July 15, 1899). 80

——. "Control of Water Undertakings and Sources of Water Supply." J. Gas Light. 76:1519 (Dec. 18, 1900). 81

——. "Corporation Water Works." Penn-Lewis, W. Report of the Proceedings of the Eighth Annual Meeting of the Corporate Treasurers' & Accountants' Institute, Hull, June 22-23, 1893, p. 33. 82

——. "Directory and Statistics, Water Works." London, Hazell, Watson and Viney. Published annually, 23d issue, 1899. 8vo, 128 pp. 83

——. "Filtration of Water, The English System of." Davis, Floyd. Mun. Engng. 19:394 (Dec. 1900). 84

——. "Law of Gas, Water and Electric Lighting." Will, J. Shirless. London, Butterworth, 1894. 8vo. 32s. 85

——. "Local Government and its Relation to Parish Water Supply and Sewerage." Meade-King, W. O. F. J. Soc. Arts Jan. 26, 1900, Surveyor 17:128 (Feb. 2, 1900), San. Rec. 25:90 (Feb. 2, 1900). 86

——. "Local Government Board and the Protection of Water Supplies from Pollution." Griffith, Percy. J. of Gas Light. Aug. 9, 1898. 87

——. Municipal Control, Municipal Ownership of Water Works. (See under Municipal Control, Municipal Ownership above.)

——. Taxation. "The Rating of Water Undertakings." Bancroft, F. J. J. Gas Light. 76:24 (July 3, 1900), Surveyor 18:4 (July 6, 1900). 88

——. "Underground Water." Mansergh, James. Engng. Rec. 42:596 (Dec. 22, 1900). 89

——. "British Law in regard to Underground Water." Will, J. Shirless. Engng. N. 44:383 (Dec. 6, 1900). 90

——. "Underground Water Supplies, The Protection of." Matthews, William. Surveyor 18:679 (Dec. 14, 1900), J. Gas. Light. 76:1579 (Dec. 25, 1900). 91

——. "Water Acts for 1900." J. Gas Light. 76:1078 (Oct. 30, 1900). 92

——. "Water Supply of English Cities." Fire and W. May 22, 1897. 93

"Women's Work on Vestries and Councils." (England.) Busk, Alice E. p. 379 "Good Citizenship," edited by J. E. Hand. London, Geo. Allan, 1899. 474 pp. 94

United States.

City Government, General References.

"A Continuing City." Jordan, David Starr. Cal. Mun. 1:229 (Feb. 1900). 96

"A Municipal Program: Report of a Committee of the National Municipal League, adopted by the League, November 17, 1899, together with Explanatory and other Papers." New York, Macmillan Co., 1900. 8vo, 246 pp. Cl. $1. 97

——. "An Examination of the Proposed Municipal Program." Wilcox, Delos F. Pp. 51-62 in Proc. of the Columbus Conf. for Good City Govt., 1899. See 6-18f. Anon. pp. 225-239 in "A Municipal Program." New York, Macmillan Co., 1900. 8vo, 246 pp. Cl. $1. 98

——. "A General View of the New Municipal Program." Butler, John A. Pp. 87-95 in "Proc. of the Columbus Conf., 1899, see 6-18f. 99

——. "A Summary of the Program." Rowe, Leo S. Pp. 157-173 in "A Municipal Program." New York, The Macmillan Co., 1900. 8vo, 246 pp. Cl. $1.) 100

——. "Public Opinion and City Government under the Proposed Municipal Program." Deming, Horace E. Pp. 77-86 in "Proc. of the Columbus Conf., 1899, see 6-18f; also pp. 146-156 in "A Municipal Program." New York, Macmillan, 1900. 8vo, 246 pp. Cl. $1. 1

"American Citizen, The." Dole, Chas. F. Boston, D. C. Heath & Co., 1891, 294 pp. 90 cts. (Chapter XIII on City Government.) 2

United States—*Continued.*

"American Citizen's Manual, The." Ford, Worthington C. New York, Putnams, 1883, 184 pp. $1.25. (Chap. II, p. 53, on Local and Municipal Government.) 3

"American Commonwealth, The." Bryce, James. London and New York, Macmillan, 3d ed., 1895. 2 vols. $5. (Part III, Vol. II on "The Party System," Chapter LXXXVIII, p. 377, on "The Tammany Ring in New York," and Chapter LXXXIX on "The Philadelphia Gas Ring.") 4

"American Ideals and Other Essays, Social and Political." Roosevelt, Theodore. New York, G. P. Putnam's Sons, 1897. 12mo, 354 pp. Cl. $1.50. (Chap. VI, "Machine Politics in New York City." Chap. VIII, "Administering the New York Police Force.") 5

"Charter Needs of Great Cities." Coler, Bird S. No. Am. 170:850 (June, 1900). 6

"City Government in the United States." Conkling, A. R. New York, Appletons, 1894, 227 pp. $1. 7

——. "City Government." Bradford, Gamaliel. Ch. 24 and 25 in "The Lesson of Popular Government." New York, Macmillan, 1899. 8vo, 2 vols., 520, 590 pp. Cl. $4. 8

——. "City Government." Part IV, Ch. 5 in "An Outline of American Government." Wilcox, Delos F., and Gill, Wilson L. Our Country 10:55 (Oct. 1899). 9

"City Problems." Wilcox, Delos F. Our Country 7:61 (March, 1898). 10

——. "The City Problem." Hoskin, A. A. New York, J. B. Alden, 1900. 12mo, 153 pp. 50 cts. 11

——. "The Problems of City Life." Byles, W. P. Mun. J. 9:186 (March 9, 1900). 12

"Civil Government in the United States." Fiske, John. Boston, Houghton, M. & Co., 1890. 12mo, 360 pp. $1. (Chap. V on "The City.") 13

——. "Civil Government in the United States, General Outline of the States, Counties, Townships, Cities and Towns." Higby, Clinton D. Boston, Lee, 1895. 133 pp. 30 cts. 14

"Constitutional Municipal Government." Foote, Allen Ripley. Public Policy 2:171 (March 17, 1900), 2:187 (March 24, 1900), 2:202 (March 31, 1900). 15

"Decay of State and Municipal Government in America." Patten, Simon N. Ann. Am. Acad. Pol. Sci. 1:26 (1892). Separate, 25 cts. 16

"Development of American Cities." Quincy, Josiah. Arena 17:529 (March, 1897). 17

"Failure of the Government of Cities in America." Porritt, E. National 24:245, Ecl. M. 123:669 (1895). 18

"Government of American Cities." White, A. D. Forum 10:357 (1890). 19

——. "Government of Cities in the United States." Low, Seth. Cent. 42:730 (1891). 20

"Higher Life of American Cities." Roosevelt, Theodore. Outlook 52:1082 (1895). 21

"Local Administration in the United States and in the United Kingdom." Montagu, F. C. London and New York, Cassell & Co., 1888. 32 pp. 22

"Local Government in America." Shaw, Albert. Fortn. 38:485 (1882). 23

"Local Government in the South and Southwest." Bemis, E. W. J. H. Univ. Press. 115 pp. $1.00. 24

"Local Government and City Government." Willoughby, W. W., and W. F. (in "Government and Administration in the United States." J. H. U. Study on Government and Administration in the United States, Ninth Series, p. 88, Jan. Feb. 1891. Separate, paper. 75 cts. 25

Municipal Government in the United States. Pp. 837-840, Vol. II, Palgrave. See 1-2. 26

——. "La République Americaine, Etats-Unis, Institutions d'Etat, Régime Municipale, etc." Carlier, A. Paris, Guillaumin et Cie., 1890. 4 vols. 36 fr. 27

——. "Le Régime Municipal aux Etats-Unis." Lambelin, Roger. R. Municipale 3:2025 (April 7, 1900). 28

"Municipal Institutions in America and England." (Comparison of Birmingham and Boston mainly.) Chamberlain, Joseph. Forum 14:267 (1892). See also Our Day 11:123 (1893). 29

"Municipal Organization in the United States." Chap. III, p. 193, Vol. I, "Comparative Administrative Law." Goodnow, Frank J. 30

"Municipal Problem in the United States, The." Deming, Horace E. p. 53 Pro. Indianapolis Conf, 1898, see 6-18e. Same, pp. 36-58 in "A Municipal Program." New York, Macmillan, 1900. 8vo, 246 pp. $1.00. 31

United States—*Continued.*

"Municipal Problems in America." Janes, Louis G. Social Economist 2:395 (1892). 32

"Our Cities." Waring, Geo. E. Pp. 214-93, Vol. II, Nathaniel S. Shaler's "United States of America." New York, Appleton, 1894. 2 vols. 670 and 641 pp. $10.00. 33

"Peculiarities of American Municipal Government." Ch. V, p. 145, "Unforeseen Tendencies of Democracy." Godkin, E. L. New York, Houghton, M. & Co., 1898. 12mo, 265 pp. Cl. $2.00. Also in Atlan. 80:620 (Nov. 1897). 34

"Political Ideas and Institutions in their Relations to the Conditions of City Life, American." Rowe, Leo S. Pages 75-88, Pro. of the Louisville Conf., 1897. See 6-18d. 35

"Politics and Administration." Goodnow, Frank J. New York, Macmillan Co., 1900. 12mo, 270 pp. Cloth, $1.50. 36

"Practical Agitation." Chapman, John J. New York, Charles Scribner's Sons. 1900. 12mo, 157 pp. Cloth, $1.25. 37

"Problem of City Government in the United States." Low, Seth. Outlook 53:624 (1896). 38

"Reform in the United States, Municipal." Culham, J. A. Mun. World 9:166 (Oct. 1899). 39

——. "American Municipal Reform." Bonney, C. Carroll. Our Day 7:418 (1891). 40

——. Municipal Reform during the Past Year. Woodruff, Clinton Rogers. pp. 45-62 Louisville Conference, 1897, see 6-18d; 1898, p. 101, see 6-18e; 1899, pp. 169-187, see 6-18f; Engng. N. 44:194 (Sept. 20, 1900). 41

"Social Atheism, A Picture of. The Rottenness of American Municipalities." R. of Rs. 3:56 (1891). 42

"The Coming Democracy." Smith, Orlando J. New York, The Brander Co., 1900. 12mo, 162 pp. Cloth, $1.00. 43

"The Higher Municipality." Snow, R. W. Cal. Mun. 2:111 (May, 1900). 44

"Town Government, American." Hale, Edward Everett. p. 1, New Series No. 1, American Institute of Civics, New York, 1895. 21 pp. 20 cts. 45

——. "Decay of Town Government, The." (Editorial.) Nation 65:180 (Sept. 2, 1897). 46

——. "Democratic Government a Study of Politics." Stickney, Albert. New York, Harper, 1885. 166 pp. $1. (Revival of Town Meeting Government.) See also "The Political Problem," by the same author. New York, Harper, 1890. 189 pp. $1.00. 47

——. "Legislation of Town Meetings." Connor, R. Nation 20:186, 203 (1875). 48

——. "Town Meeting, The." Fiske, John. Harper 70:265 (1885). 49

——. "Town Meeting Idea applied to the Government of Cities." Thomas, J. F. Am. J. Pol. 2:503 (1893). 50

——. "Town Meetings for Great Cities." Allen, W. F. Nation 2:684 (1865). 51

"Towns and Cities." Deady, Matthew P. Address before the students of the University of Oregon. Published by the Board of Regents of the U. of O. 1886. 52

"Town and Village Government." Nelson, Henry Loomis. Harper 83:111 (1891). 53

"Young Men's Municipal Clubs, Municipal Government and." Shaw, Albert. p. 5, New Series No. 1, American Institute of Civics, New York, 1895. 21 pp. 29 cts. 54

"Charity Organization in the United States, History of." Kellogg, Charles D. p. 43, "International Congress," vol. III, 1893, see 43-99. 55

——. "National Conferences of Charities and Corrections, Proceedings of the." Published annually 1874-1899. 56

"Civil Service in the United States." (Pt. iv, pp. 425-475, on the State and Municipal Service.) Comstock, John M. New York, Holt, 1885. 8vo, 602 pp. $2.00. 57

"Contracts with Cities, Legal Status of." Prog. Age 18:446 (Oct. 15, 1900).

Court Decisions. "American and English Corporation Cases, a collection of corporation cases, private and municipal, decided in the courts of last resort in the United States, England and Canada." New York, Thompson, 1895. 3 vols. Each $6.50. 58

"Damage Suits against Municipalities." Aylward, John A. Muncipality vol. 1, No. 4, p. 32 (Oct. 1900), No. 5, p. 9 (Dec. 1900). 59

Depopulation. "Urban Populations in the South, the country being deserted, etc." U. S. Department of Agriculture, Report of the Statistician, Sept. 1894, p. 572. 60

United States—*Continued.*

Direct Legislation. "The Referendum in America, a discussion of law making by popular vote." (Especially Ch. IV, pp. 86-104, on "The People and their City Charters.") Oberholtzer, Ellis Paxon. Pubs. of the U. of Pa., Vol. IV, No. 12, 1893. 225 pp. $1.50. 61

Engineering, Municipal. "A Review of Important Municipal Work in America." Mun. Engng. 16:7 (Jan. 1899).

——. "Laws Governing Public Works, An Outline of Municipal." Mun. Engng. 14:10 (Jan. 1898). 62

——. "Laws Governing them, Municipal Public Improvements and the." Molitor, David. Mun. Engng. 13:331 (Dec. 1897). 63

——. "Municipal Work in America." Mun. Engng. 17:249 (Nov. 1899).

——. "Public Works of Last Year." City Engineers' Reports on extent, character and cost of Public Improvements made under their direction. (Newark, N. J., Allegheny, Pa., Albany, N. Y., Kansas City, Mo., Providence, R. I., Kansas City, Kas., Peoria, Ill., Richmond, Va., Troy, N. Y., Springfield, Mass., Milwaukee, Wis.) City Govt. 2:2 (Jan. 1897). 64

"Finance." pp. 88, 92, "American Statute Law," by F. J. Stimson. Boston, Soule, 1886. 2 vols. 8vo, 779, 622 pp. 65

——. "American Tax Methods." Taussig, F. W. Ind. 50:137 (Feb. 3, 1898). 66

——. "Corporation Finance: A Study of the Finances of Corporations in the United States, with special reference to the valuation of corporation securities." Greene, Thomas L. New York, G. P. Putnam's Sons, 1897. 185 pp. $1.25 67

——. "Das Finanzwesen der Staaten und Städte d. nordamerikanischen Union." Patten, Simon Nelson. Jena, Fischer, 1878. 61 pp. 68

——. "Municipal Revenues and Expenses." Herrmann, August. City Govt. 5:219 (Dec. 1898). 69

——. "Staats- u. Lokalfinanzen d. Verein. Staaten v. Nord Amerika." Kaufman, R. v. 1891. 8vo. 70

——. Statistics. "Suggestions in regard to the Statistics of Municipal Finance in the Census of 1900." Critical essays on the Federal Census. Am. Econ. Assoc. Publications, March 1899, pp. 415-65. N. Y., Macmillan, 1899. 8vo, 525 pp. Paper $2; cl. $2.50. 71

——. "Taxation in American States and Cities." Ely, R. T., and John H. Finley. New York, Thos. Y. Crowell & Sons, 1888. 544 pp. $1.75. 72

——. Taxation. "Relief of Local and State Taxation through distribution of the national surplus." Thompson, R. E. Philadelphia, E. Stern & Co., 1888. 8vo, 28 pp. 25 cts. 73

——. "Taxation, Some Possible Reforms in State and Local." Howe, Frederic C. Am. Law. R. 33:685 (Sept.-Oct. 1899). 74

——. "Taxation, State and Municipal." Shearman, T. G. Nation 4:455 (1867). 75

——. "Taxation in the Larger Cities of the United States, Rates of." Herrmann, August. Pro. Am. Soc. Mun. Imp. (5th yr.) Pt. II, p. 3 (Oct. 1898). 76

——. "Uniform Accounting." Cahoon, James Blake. Prog. Age 18:333 (Aug. 1, 1900). (See also under Statistics below.) 77

——. "Valuation, Taxation and Indebtedness." Porter, Robert P. Washington, Government Printing Office, 1884. 909 pp. Tenth Census of the United States. 78

Foreign Element in American Cities, Statistics of. Report on Population, Pt. I, pp. xc-xcii; Table 50, pp. 704-6. 79

"Growth of Cities of the United States." Lossing, Benson J. Harper's M. 7:171 (1853); Magie, B. C. Scribner's 15:418 (1878). 80

——. "Growth of Cities in the United States during the decade 1880-90." Boyd, Carl. Am. Stat. Assoc. 3:416, No. 23 (1393). 75 cts. 81

——. "Rise of American Cities." Hart, A. B. Q. J. E. 4:129 (1890). For same article see also his "Practical Essays on American Government," VIIIth Essay. New York, Longmans, G. & Co., 1893. 311 pp. 82

History. American Historic Towns. Series edited by Lyman P. Powell. Three vols. "Historic Towns of New England," with sketches of Portland, Rutland, Salem, Boston, Cambridge, Concord, Plymouth, Cape Cod Towns, Deerfield, Newport, Providence, Hartford, New Haven; "Historic Towns of the Middle States," with sketches of Albany, Saratoga, Schenectady, Newburg, Tarrytown, Brooklyn, New York, Buffalo, Pittsburgh, Philadelphia, Princeton and Wilmington. "Historic Towns of the Southern States," with sketches of Baltimore, Annapolis, Frederick, Washington, Richmond, Williamsburg, Wilmington, N. C.,

United States—*Continued.*

Charleston, Savannah, St. Augustine, Mobile, Montgomery, New Orleans, Vicksburg, Knoxville, Nashville, Louisville and Little Rock. New York, Putnams, 1898, 1899, 1900. 8vo, 597, 439, 528 pp. Cl. $3.50 per vol. 83

——. "A Century of Social Betterment." McMaster, John Bach. Atlan. 79:20 (Jan. 1897). 84

——. "Germanic Origins of New England Towns." Adams, Herbert B. J. H. Univ. Studies I:2 (1883). 85

——. "Introduction to the Local Constitutional History of the U. S." Howard, Geo. Elliot. J. H. U. Series extra vol. 8vo, 542 pp. Cl. $3.00. 86

——. "Municipal Corporations in the Colonies." Fairlie, John Archibald. Mun. Aff. 2:341 (Sept. 1898). 87

——. "Municipal Development in the United States." Fairlie, John A. Pp. 1-35 in "A Municipal Program." New York, Macmillan, 1900. 8vo. 246 pp. Cloth, $1. 88

——. "Municipal Government now and a Hundred Years Ago." Woodruff, Clinton Rogers. Pop. Sci. Mo. 58:60 (Nov. 1900). 89

Housing. "Maisons pour Ouvrières des Grandes Cités aux Etats-Unis d'Amérique." Escard, Paul. Ref. Soc. 9:927 (June 16, 1900). 90

——. "Municipal Lodging Houses." Mun. J. & Eng. 9:148 (Dec. 1900).

Legislation. "Recent Economic and Social Legislation in the United States." Stimson, F. J. Yale R. 6:148 (Aug. 1897). 91

——. "American Statute Law." Stimson, Frederic J. Boston, Soule, 1886. 2 vols. 8vo, 779, 622 pp. 92

——. "Legislation in 1895, 1896, 1897, 1898, Political and Municipal." Durand, E. Dana. Ann. Am. Acad. Pol. Sci. 7:411; 9:231; 11:174; 13:212 (May, 1896, March, 1897, 1898, 1899). 93

——. "Legislation in 1899, Political and Municipal." (Continuation of above series.) Whitten, Robert H. Ann. Am. Acad. Pol. Sci. 15:160 (March, 1900). 94

——. "Legislation by States in 1900." Whitten, Robert H. Bull. N. Y. State Library Dec. 1900. 95

——. "Recent Municipal Experiments." (Legislation in various States.) Gunton's 15:116 (August, 1898).

"Licenses, Municipal." Kirkbride, C. N. Cal. Mun. 2:43 (March, 1900). .96

Lighting. "A Great Gas Business." (Methods of the United Gas Improvement Co., controlling the gas supply of Philadelphia and thirty-two other cities.) City & State 4:624 (June 2, 1898). 97

——. "American Gas Affairs." Chandler, C. F. Prog. Age 18:359 (Aug. 15, 1900). 98

——. "Directory of American Gas Companies." Brown, E. C. New York, Progressive Age, 1899. (Eighth year.) 8vo, 156 pp. Cl. $5. 99

——. "Directory of Gas Light Companies in the United States and Canada." Goodwin, William W. Philadelphia. Published by the Goodwin Gas Stove and Meter Co., fifth edition, 1886. 263 pp. 100

——. "Directory, Johnston's Electrical and Street Railway." New York, W. J. Johnston Co. Published annually, edition for 1897, 748 pp. $5. 1

——. "Fuel Gas in the United States, The Failure of the Commercial Attempts to Supply." Shelton, F. H. Prog. Age 15:259 (June 15, 1897), Am. Gas Lgt. J. 66:903 (June 7, 1897), Engng. News 38:108 (Aug. 12, 1897). 2

——. "Incandescent Gas Lighting in the United States, Development of." Brown, D. Walter. Prog. Age 16:78, 129, 164, 185, 231, 304 (Feb. 15, March 15, April 1, April 15, May 15, June 15, 1898). 3

——. "Law of Electric Wires in Streets and Highways, The." Keasbey, Edward Quinton. (2nd Ed.) Chicago, Callaghan & Co., 1900. 8vo, 358 pp. 4

——. Municipal Ownership, etc. (See under Municipal Control.)

——. "Photometrical Standards in the United States." J. Gas Light. 76:1338 (Nov. 27, 1900).

——. "Price of Gas in seventy-nine Cities of the United States, 1873-1887." Progressive Age, April, 1887. 5

——. "Price of Gas in 100 Cities in the United States from 1878-1887." Progressive Age and Water Gas Journal, March, 1887. 6

——. "Some Notes upon Typical American Gas Works." Am. Gas Light. J. 68:251 (Feb. 14, 1898).

——. "Statistics Regarding the Gas Companies of America." Goodwin, William

United States—*Continued.*

W. Paper read before the American Gas Light Association, Philadelphia, Oct. 1896. 6 pp. 7

——. "Street Lighting, Cost of, in Different Cities in the United States." Engng. News June 28, 1890, p. 607.

——. "Street Lighting, Cost of. Unreasonable inequality of prices charged for illuminating the streets of American Cities." City Govt. 2:37 (Feb. 1897). 8

——. "Chaotic Condition of Our Street Lighting System as to Cost, etc." Hunter, D. Elec. Eng. 24:331 (Oct. 7, 1897), Prog. Age 15:465 (Oct. 15, 1897). 9

——. "Electric Street Lighting in American Cities." Cappelen, F. W. Mun. Engng. 15:276 (Nov. 1898); Finley, R. J. R. of Rs. 7:68 (1893). 10

"Liquor Laws, A Study of American." Eliot, Charles W. Atlan. 79:177 (Feb. 1897). 11

Mayor, Functions of. "Les Fonctions de Maire aux Etats-Unis." Chabanne, J. B. Revue Municipale 3:1627 (Oct. 14, 1899). 12

Municipal Control, Ownership, etc. "American Experiments in Municipal Control." (Reprinted from N. Y. World.) Mun. Rec. & Ad. Vol. 1, No. 23, p. 6 (Nov. 13, 1897). 13

——. "The Cost of Supplying Water, Gas and Electricity." Engng. Rec. 42:121 (Aug. 11, 1900).

——. "Municipal Electric Light Plants." (Bulletin No. 1, issued by the League of American Municipalities, New York City, Feb. 1898). 14

——. "Municipal Gas Works in the United States." Hollander, J. H. Independent Jan. 21, 1893. 15

——. "Municipal Lighting in the United States." Cappelen, F. W. J. Assoc. Engin. Soc. 18:313 (May, 1897). 16

——. "Municipal Ownership of Gas in the United States." Bemis, E. W. Am. Econ. Assoc. Pubs. VI:4 and 5 (1891). $1.00. 17

——. "Municipal Socialism in America." Chase, John C. Ind. 52:249 (Jan. 25, 1900); Maltbie, Milo Roy. Pp. 126-8 in "The Labour Annual for 1900." Edwards, Joseph, Editor. Wallasey, Edwards, 1900. 12mo, 176 pp. Cloth, 2s. 18

——. "Powers of Municipalities respecting Public Works." Goodnow, Frank J. Am. Econ. Assoc. 2:563 (1888). 19

——. "State Control of Corporations." Cahoon, James Blake. Am. Gas. Light J. 73:1047 (Dec. 31, 1900). 20

——. "The City in the United States—The Proper Scope of its Activities." Shaw, Albert. Pp. 59-73 in "A Municipal Program." New York, The Macmillan Co., 1890. 8vo, 246 pp. Cloth, $1.00. p. 82, Ind. Conf. See 6-18e. 21

——. "Water, Gas and Electric-light Plants under Private and Municipal Ownership." Fourteenth Annual Report of the Commissioner of Labor, 1899. Washington, 1900. 8vo, 983 pp.; criticism in Engng. N. 44:92 (Aug. 9, 1900). 22

Overcrowding. "Congested Districts in American Cities." Wright, Carroll D. Our Day 9:172 (1892). 23

"Parks and Squares in Cities of the United States." Eliot, Charles. Garden & F. 1:412 (1888). 24

——. "Park Movement in the United States." Garden & F. 6:221 (1893).

——. "Parkways and Boulevards in American Cities." Baxter, Sylvester. Am. Arch. Oct. 8, 1898. 25

"Paving, American Street." Engng. Rec. 37:29 (Dec. 11, 1897).

——. "Assessment of Cost of Pavement, the Practice of 27 American Cities." Pav. & Mun. Eng. April, 1895, p. 201. 26

——. "Brick Paving in the Middle West." Bain, H. Foster. Am. R. of Rs. 20:60 (July, 1899). 27

——. Street Pavements in American Cities. Gillham, R. Engng. News July 7, 1892, p. 2; Haupt, Lewis M. J. Frankl. Inst. Dec. 1889; anon. Engng. N. 23:292 (1890). 28

——. "Street Paving in Eastern Cities." Mchts. Assoc. R., Vol. 3, No. 35. p. 3 (July, 1899).

——. "Wood Paving in the East." Downing, M. A. California Municipalities 1:144 (Dec. 1899). 29

Police. Pp. 1016-1022, Encyc. Soc. Ref. See 1-3. 30

——. "Law of sheriffs, constables, marshals, municipal police and detectives." Warrum, Henry. Indianapolis, Warrum, 1895. 143 pp. $1.00. 31

United States—*Continued.*

——. "Limitations of Police Power in the United States, A Treatise on the." Tiedeman, Christopher G. St. Louis, F. H. Thomas Law Book Co., 1886. 662 pp. $6.00. 32

——. "Police Force in Eleven Principal Cities of the United States." Wheatley, R. Chaut. 7:197 (1893). 33

——. Prisons. "Our Penal Machinery and its Victims." Altgeld, John P. Chicago, McClurg, new ed., 1886. 8vo, 151 pp. Paper, 50c. 34

——. "Reformatory System in the United States, The." Reports prepared for the International Prison Commission. Barrows, S. J. Washington, Government Printing Office, 1900. Doc. No. 459, 56 Congress 1st session. 8vo, 240 pp. 35

——. "Statistics, Police Department." City Govt. 5:228 (Dec. 1898), 6:19 (Jan. 1899).

"Political Parties and City Government under the Proposed Municipal Program." Goodnow, Frank J. Pp. 129-145 in "A Municipal Program." New York, The Macmillan Co., 1900. 8vo, 246 pp. Cloth, $1.00. 36

——. "Our Political Methods." Field, David Dudley. Forum 2:213 (1886). 37

——. "Political Organizations in the United States and England." Bryce, James. No. Am. 156:105 (1893). 38

Referendum. (See under Direct Legislation above.)

Sanitation. "Boards of Health, The Powers, Duties and Limitations of." Patterson, S. A. Pro. 24th An. Meeting N. J. Sanitary Ass'n, 1898, p. 57. 39

——. "Defects of Municipal Sanitation in American Cities." Billings, John S. Forum 15:304 (1893). 40

——. History. "The Past and Present Condition of Public Hygiene and State Medicine in the United States." Abbott, Samuel W. Department of Social Economy for the United States Commission to the Paris Exposition of 1900. 8vo, 103 pp. Paper. 41

——. History. "Sanitary Science in the United States—its Present and its Future." Leeds, Albert R. Van Nos. Eng. M. 20:6 (1879). 42

——. "Manual for Boards of Health and Health Officers." Balch, Louis. New York, Banks, 1893. 242 pp. $1.50. 43

——. "National Government and the Public Health." Girdner, John H.; Doty, Alvah H., and Drake, C. M. No. Am. 165:733 (Dec. 1897). 44

——. "National Health Bureau in the United States, Need of a." Prudden, T. Mitchell. Hrprs. Wkly. 38:470 (1894). 45

——. "Department of Public Health for the United States." Sanitarian 38:442 (May, 1897).

——. "Quarantine System of the United States." Wyman, Walter. Sanitarian 39:418 (Nov. 1897). 46

"School System of the United States, The Public." Rice, J. M. New York, Century Co., 1893. 300 pp. $1.50. A summary in Forum 15:504 (1893). 47

——. "Centralizing Tendencies in State Educational Administration, Recent." Webster, W. C. New York, Macmillan, 1897. 8vo, 78 pp. 75 cents. (Columbia Univ. Studies in History, Economics and Public Law, Vol. 4.) 48

——. "City School Systems in the United States." Philbrick, John D. Circular of Information, U. S. Bureau of Education, No. 1, Washington, D. C., 1885. 207 pp. 49

——. "Compulsory Education in the United States." Shaw, W. B. Educa. Rev. 3:444 (May, 1892), 4:47, 129 (June, Sept. 1892). 50

——. "Free School System of the United States, The." Adams, Francis. London, Chapman & Hall, 1875. 300 pp. 9s. 51

——. "L'Instruction Primaire aux Etats-Unis." de Guer, Guerlin. Paris, Berger, Levrault & Cie., 1880. 8vo. 1fr. 52

——. "Legislation, Recent School, in the United States." Shaw, W. B. Educa. R. 8:258 (1894). 53

——. "Legislation for Cities, Recent School." Hinsdale, B. A. Dial 26:107 (Feb. 16, 1899). 54

——. "Public Schools of the United States." Hewes, F. W. Hrprs. Wkly. 39:1017, 1040, 1068, 1093, 1112, 1141 and 1164 (1895). 55

——. Reports of the Commissioner of Education. (From 1870 to present time. Statistics, descriptions, etc., of city schools in America and abroad.) Washington, Government Printing Office. 56

United States—*Continued.*

——. "Savings banks in the United States, School." Thiry. Reprinted in part in Report of U. S. Commissioner of Education, 1888-89, Vol. I, p. 655. 57

——. Statistics of Enrollment, etc. Report of Commissioner of Education, 1894-5, Vol. II, p. 1170. 58

"Sewage Disposal in the United States." (Containing a discussion of the principles and descriptions of the various methods, and of all the works in operation.) Baker, M. N., and G. W. Rafter. New York, D. Van Nostrand & Co., 1894. 598 pp. $6.00. 59

——. "Federal Decision on Sewage Disposal Nuisances." Engng. Rec. 40:189 (July 29, 1899).

——. "Liability for Defective Sewerage, Municipal." Clark, Frank H. Central Law Journal 24:123 (1887). 60

——. "Purification of Sewage in America." A series of articles in the Engineering News, beginning July 14, 1892. In book form: New York, Engng. N. Pub. Co., 1893. 196 pp. $1. 61

——. "Sewerage of American Cities and Towns." Latrobe, C. H. Engng. News Dec. 3, 17, 1881. 62

——. "Sewerage Systems in the United States and Canada." Engng. N. Aug. 23, 1890, p. 170.

"Statistics of Cities." U. S. Bulletin Dept. of Labor 3:625 (Sept. 1899), 5:916 (Sept. 1900), and to appear annually. 63

——. "Census of 1900, Municipal Statistics in the." Engng. News 42:56 (July 27, 1899). 64

——. "Municipal Statistics, the Census and Bemis." City Govt. 7:25 (Aug. 1899). 65

——. "Mortality and Vital Statistics." Billings, John S. Washington, Government Printing Office. Part I, 767 pp. 1885. Part II, 803 pp. 1886. Tenth Census of the United States. 66

——. "Municipal Statistics." Municipal Affairs 2:133 (March, 1898). 67

——. "Report of Committee on Municipal Data." Brown, Charles Carroll. Mun. Engng. 19:174 (Sept. 1900). 68

——. 'Social Statistics of Cities." Waring, Geo. E. Tenth Census, Washington, 1886. 2 vols, 915, 843 pp.; Billings, John S. Eleventh Census, Washington, 1895. 137 pp. Article by Wright, Carroll D. Pop. Sci. M. 40:607 (1892). 69

——. Uniform Accounting and Municipal Statistics. Baker, M. N. City Govt. 9:61 (Sept. 1900), Mun. Engng. 19:210 (Sept. 1900); anon. Engng. N. 42:193 Sept. 1, 1900), 43:393 (June 14, 1900), 44:12 (July 5, 1900). 70

——. (See also under **Census Reports.**) 71

"Street Cleaning Statistics for Forty American Cities." Rosewater, Andrew. Engng. News 43:136 (Feb. 22, 1900). 71

——. "Cost of Street Cleaning in twelve American Cities." Engng. News April 11th, 1895. 72

"Street Construction and Maintenance in American Cities, Laws regulating taxation for." Engng. News March 21, 1891, p. 281. 73

——. "Taxation for Street Construction and Maintenance in American Cities." Engng. News March 21, 1891, p. 281. 74

Taxation. (See above under Finance.)

"Telephone Charges, Power of Municipal Corporations to Regulate." McDougal, H. C. Am. Law R. May, 1896. 75

——. "Directory, Johnston's Electrical and Street Railway." (Lighting, transit co's, telephones in United States.) New York, W. J. Johnston Co. Published annually, edition for 1897, 748 pp. $5. 76

——. "Independent Telephone Association of the United States." (Anti-Bell Companies Organization.) Elec. Rev. 30:307 (June 30, 1897). 77

Transit Facilities. "American Practice." p. 51 "Rapid Transit in Foreign Cities." Parsons, W. B. New York, 1894. 78

——. "American Railways and American Cities." (Effect of discriminating rates on cities.) Fletcher, H. G. Atlan. 73:803 (1894). 79

——. "American Tramway Notes." (A department in each number of the Ty. & Ry. World.) 80

——. "A Trolley Trip from Boston to New York." Derrah, Robert H. St. Ry. R. 9:377 (June 15, 1899). 81

United States—*Continued.*

——. "British Impressions of American Street Railways, Some." McCallum, Alexander. St. Ry. Jour. 13:20 (Jan. 1897). 82

——. "Cable and Electric Traction in America." Ry. World Dec. 1896, 8:58 (Feb. 9, 1899).

——. "Capitalization in America, Distribution of Street Railway Mileage and." St. Ry. J. 13:665 (Oct. 1897). 83

——. "Construction and Equipment, American Electric Street Railways, their." Hedges, Killingworth. New York, Spon & Chamberlain, 1894. 200 pp. $5. 84

——. "Directory, Johnston's Electrical and Street Railway." New York, W. J. Johnston Co. Published annually, edition for 1897, 748 pp. $5. 85

——. "Electric Traction in America." Bell, Louis. Ry. World 7:54 (Feb. 1898). 86

——. "Electric Traction in the United States in 1896." (Report of Messrs. Young and Clark to the Tramways Committee of Glasgow.) Electricity (London) Dec. 18, 1896, St. Ry. J. 13:28, 32, 36 (Jan. 1897). 87

——. "Electric Traction, American Statistics on." Ry. World 7:140 (May 5, 1898).

——. "Electric Tramways in the United States, The Early Future of." Ty. & Ry. World 8:399 (Oct. 5, 1899). 88

——. "Financial Practice and Engineering Methods of American Street Railways." Higgins, E. E. Elec. Eng. 23:403, 430, 447, 472 (April 14, 21, 28 and May 5, 1897). 89

——. "Financial Results of Cable and Electric Railway Operations in the United States." St. Ry. J, 13:209, 281, 409, 468 (April, May, July, Aug. 1897). 90

——. "Gross Receipts per Capita and per Mile of Track in the Principal American Cities." St. Ry. J. 15:227, 515 (April, Aug. 1899). 91

——. "Franchises in American Cities, Street Railway." Engng. News 43:13 (Jan. 4, 1900). 92

——. "Impressions of American Tramway Practice." le Rossignol, A. E. Mun. J. 9:749 (Sept. 21, 1900). 93

——. "Investments, American Street Railway." Higgins, E. E. (Supplement to the "Street Railway Journal," issued annually.) New York, Street Railway Pub. Co., 1899. 4to, 302 pp. Cloth, $5. 94

——. "Mail Matter on Interurban and Street Railways, The Carrying of United States." Dimmock, W. S. Mun. Rec. & Ad. 3:760 (Sept. 1898), Elec. Rev. 33:164 (Sept. 14, 1898), St. Ry. Rev. 8:613 (Sept. 15, 1898), Elec. Eng. 26:250 (Sept. 15, 1898), St. Ry. J. 14:639 (Oct. 1898). 95

——. "Power Stations of Electric Railways in America and the Economic Results of their Operation." Tandy, L. D. St. Ry. J. 13:18 (Jan. 1897). 96

——. "Rapid Transit in the Cities and the Census." Wright, Carroll D. Pop. Sci. Mo. 40:785 (1895). 97

——. "Rights of Street Railway Companies under the Constitution." Bonney, Charles L. St. Ry. Rev. 8:360 (June 15, 1898). 98

——. "Speed Ordinances in the Principal Cities of the United States." St. Ry. J. March, 1897.

——. Statistics. "Street Railway Mileage Cars and Capitalization in America." St. Ry. J. 15:100 (Feb. 1899). 99

——. "Statistics of Street Railways in the United States." (Reprinted from the St. Ry. J.) Engng. News 38:308 (Nov. 11, 1897). 100

——. "Street Railway Transportation." Pt. I, pp. 679-867 of "Transportation Business in the United States." Adams, H. C. Eleventh Census of the United States, 1890. 1

——. "Strikes, Recent Street Railroad." Gunton's 17:89 (Aug. 1899). 2

"Unemployed in American Cities." Closson, C. C. Q. J. E. 8:168, 453, 499 (1894). 3

——. "Labor Colonies Needed in the United States, Are?" Lowell, (Mrs.) Charles R. p. 77 "International Congress," vol. III, 1893. See 43-99. 4

——. "Labor Tests and Relief in Work in the United States." White, Alfred T. p. 87 "International Congress, vol. III, 1893, see 43-99. 5

——. "Movement of Unemployed in the United States." Pub. Opinion 15:499 (1893). 6

——. "Relief Measures for Unemployed in the United States." Closson, C. C. J. Pol. E. 3:461 (1895). 7

——. "Una Inchiesta sui Disoccupati negli Stati Uniti." Conigliani, C. A. Riforma Soc. 3:55 (1895). 8

Vacant Lot Cultivation. "Les Jardins Ouvriers aux Etats-Unis." Reviere, Louis. Ref. Soc. 5:956 (June 16, 1898). 9

United States—*Continued.*

——. "Eight Dollars from One." Powell, R. F. Pub. Imp. 3:313 (May 15, 1900). 10

——. "The Pingree Potato Patches." Gardener, Cornelius. Pp. 45-48 in "Proceedings of the American Park and Outdoor Art Association," Vol. 3, Pt. 3. 8vo, 56 pp. Pamphlet. 11

"Water-Front Engineering in American Cities." Holmes, H. C. Engng. Rec. 40:126 (July 8, 1899), 40:198 (July 29, 1899), 40:224 (Aug. 5, 1899). 12

Water Works. "Private Water Company, The United States Supreme Court on the Rights of a." Engng. Rec. 39:177 (Jan. 28, 1899). 13

——. "Courts, The Rate-Fixing Powers of." Engng. Rec. 41:1 (Jan. 6, 1900).

——. "Two Recent Legal Decisions Concerning the Sale of Water." Engng. Rec. 38:221 (Aug. 13, 1898).

——. "Franchises, Water Works." (Statistics of over one-third of the companies in the United States with discussion.) Engng. News Jan. 9, 1892, p. 37. 14

——. "Improvements in Water Works of America." Fteley, Alphonse. Mun. Engng. 15:147 (Sept. 1898). 15

——. "Pollution of Public Water Supplies in the United States, The." Fuller, George W. Engng. News 44:285 (Oct. 25, 1900), Mun. Engng. 19:337 (Nov. 1900). 16

——. Purification. "Sanitary and Chemical Purification of Water Due to Softening." Goldsmith, N. O. Pp. 61-68 in "Third Annual Report of the Central States Water Works Association, Cincinnati, O., Sept. 5-7, 1899." 17

——. "Purification of Water in America." Engng. N. Feb. 1, 8 and 22, 1894.

——. "Purification of Water in America, The Present Status of Methods of." Hazen, Allen. Engng. Rec. 42:442 (Nov. 10, 1900). 19

——. "Rates, Methods of Assessment and Collection of Water." Crandall, F. H. J. N. E. W. W. Assoc. 14:133 (Dec. 1899). 20

——. "Rates, Water, in the Larger Cities of the United States." Herrmann, August. Mun. Engng. 17:264 (Nov. 1899), City Govt. 7:110 (Nov. 1899), Fire & W. 26:411 (Dec. 9, 1899), 26:420 (Dec. 16, 1899), Eng. Rec. 40:459 (Oct. 14, 1899), Other Side, 1:267 (Dec. 9, 1899). 21

——. "Sources, Modes of Supply and Filtration of Public Water Supplies in the United States." Flynn, Benj. H. Engng. News 40:9 (July 7, 1898). 22

——. "Statistics of Financial Operation of Water Works." (Seventeen cities of more than 100,000 population in 1896.) Mun. Engng. 12:207 (April, 1897). 23

——. Statistics. "Capacity of Water Works Systems in American Cities." (Water Works Statistics for Seventeen Cities having more than 100,000 population.) Mun. Engng. 12:1 (Jan. 1897). 24

——. "Statistics of Municipal Water Works Plants." Mun. Engng. 12:359 (June, 1897). 25

——. Statistics. "Manual of American Water Works, Fourth Issue." (History and description of the source and mode of supply, pumps, reservoirs, stand pipes, distribution systems, pressure, consumption, revenue and expenses, cost, debt and sinking fund rates, etc., etc. of the United States and Canada). Baker, M. N. New York Engineering News Publishing Co., 1897. 8vo, 611 pp. Cl. $3. 26

——. Statistics. "Number and Ownership of Water Works in the United States and Canada." (Editorial, with interesting statistical tables). Engng. News 37:265 (April 29, 1897). 27

——. Statistics. "Ownership and Capacity of Water Works in American Cities." (Water Works Statistics for Cities of 50,000 to 100,000 population). Mun. Eng. 12:71 (Feb. 1897).

Uruguay. Local Administration. "La Administracion Local en el Uruguay." DePena, Carlos Maria. Revista Internacional 6:121 (Nov. 1897), 6:237 (Dec. 1897). 28

"Utica, N. Y., Report on Municipal Ownership of Electric Street Lighting Plant for." Engng. N. May 7, 1896. 29

"Utopias, Municipal." Spec. 64:364 (1890).

Vacant City Lots, Cultivation of.

See also Detroit, England, Germany, Hornsey, United Kingdom, United States.

"Allotments." Crespi, G. J. H. Good Words, Nov. 1898. 30

Vacant City Lots—*Continued.*

"City Farm Training Schools." Yale R. 7:95 (May, 1898). 31

"Cultivation of Vacant City Lots." Mikkleson, Michael A. Forum, May, 1896. 32

"Detroit Plan, The." Pingree, H. S. Our Day 14:254 (1895). 33

"Farming for the Poor, Free." Wilson, Rufus R. Hrprs. Wkly. 39:566 (1895). 34

"Pingree Plan, The." Lend a H. 14:404 (1895). 35

"Pingree Potato Culture and its Effects on Business." Robinson, Charles A. Arena 19:368 (March, 1898). 36

"Potato Patch, The." Lend a H. 16:362 (1896).

"Unemployed, Cultivation of Vacant City Lots by the." (Experience of a number of cities). New York, Association for Improving the Condition of the Poor, 1895. 47 pp. Discussion of this pamphlet in Garden and F. March 4, 1896. 37

——. "Successful Experiment for the Maintenance of Self-Respecting Manhood." Flower, B. O. Arena, March 1896. 38

"Vacant Lot Cultivation." Spiers, Frederic W.; Lindsay, Samuel McCune; Kirkbride, Franklin B. Char. R. 8:74 (April, 1898). 39

Vacation Schools. (See under **Schools.**

Vagrancy, Tramp Problem in Cities, etc. (See Vagrancy under **Charities,** also under **Unemployed, The**).

"**Vancouver, B. C.,** Pavements in." Stuart, A. K. Tr. Can. Soc. Civ. Eng. 13:100 (1899). 40

Venal Voters in Cities. (See under **Bossism, Elections, Parties**).

Venice, Italy.

History. "The Venetian Republic." Hazlitt, W. Carew. New York, The Macmillan Co., 1900. 8vo, 2 vols. Cloth, $12. 40a

"Sociological and Ethnical Sources of the Greatness of Venice." Lombroso, Cesare. Forum 26:485 (Dec. 1898). 41

"**Veracruz,** Street Railways in." Pagés. Cons. Rep. 61:562 (Dec. 1899). 42

Versailles, France.

Electric Tramways. "Les Tramways Electriques à Versailles." La Revue Technique Feb. 10, 1897; Railway World (London) Feb. 1897. 43

Water Supply. "Les Eaux de Versailles." Thiteau, J. B., and Garlier, G. Ann. D'Hyg. Pub. 42:209 (Sept. 1899). 44

"**Vicksburg, Miss.,** History of." Simrall, H. F. See 1-4c. 45

Victoria, Australia. Direct Legislation. "Report of the Royal Commission on Constitutional Reform." 1894. Abstracted in U. S. Senate Doc. 340, 55th Congress, 2d session. 46

Victoria, B. C.

"City of British Columbia, The Queen." Durham, Julian. Canadian M. 12:207 (Jan. 1899). 47

"Sewerage of Victoria, B. C." Mohun, E. Tr. Can. Soc. C. Eng. 10:75. 48

Vienna.

"Baths at Vienna, The Municipal People's." Arch. & Buil. 30:115 (April 15, 1899).

——. "Die städtischen Volksbäder in Wien." Bernaneck, H. Zeitschr. d. Oesterr. Ing. u. Arch. Ver. March 25, April 1, 1898. 49

Buildings. "Wiener Bauten-Album." Wiener Bauindustrie Zeitung (Vienna), Jan. 28, 1897.

——. "Continental Town Halls: Vienna." Mun. J. 9:259 (April 6, 1900).

Charity. "Die persönl. Verhältnisse der Wiener Armen statist. dargestellt." v. Inama-Sternegg. Wien, 1892. 1m. 50

——. "Das sociale Elend der Grossstädte Wien u. Berlin." Deutsch, Ed. Wien, Mayer u. C., 1878. 51

——. People's Kitchens. "Wiener Volksküchen. Aufgabe, Beförderung, Verwaltung und Organisation." Kühn, Jos. Wien, Seidl u. Sohn, 1876. 2m. 52

Vienna—*Continued.*

——. "Poor Relief in Vienna and its Reform." Kobatsch, Rudolph. P. 241 "International Congress," vol. 1, 1893, see 43-99. 53

"Government of Vienna, Report on the." Kasson, John A. Foreign Relations Report for 1879. 54

——. "Gemeinde Verwaltung der Reichshaupt- und Residenzstadt Wien in den Jahren 1867-70, Die." Felder, Cajetan. Wien, Carl Gerold's Sohn, 1872. (Also for 1871-73). 24m. each. 55

"History of Vienna, Recent Events in the Municipal." Rowe, Leo S. The Citizen 1:282 (1895). 56

——. Past and Future. "Wiens Gegenwart und Zukunft." Norden, Hans. Breslau, Honsch & Tiesler, 1899. 8vo, 44 pp. 1 mark. 57

Housing. "Das bürgerliche Wohnhaus und das Wiener Zinshaus." Eitelberger, R., Ferstel, H. Wien, 1860. 58

——. "Der Verein für Arbeiterhäuser in Wien." Zeitschr. d. Oesterr. Ing. u. Arch. Ver. Feb. 19, 1897. 59

Lighting. "Die Stellung der Privaten Beleuchtungs-gesellschaften zu Stadt und Staat. Die Erfahrung in Wien, Paris und Massachusetts." Gray, John Henry. Jena, Gustav Fischer, 1893. 8vo, 167 pp. 60

——. "Acetylene Lighting at Vienna." Pro. Age 16:122 (March 15, 1898).

——. "Municipal Gas Fiasco in Vienna, The." Elec. Eng. 26:448 (Nov. 3, 1898). 61

Municipal Theatre. "Die Reconstruction des Burgtheatres." Prokop. Zeitschr. d. Oesterr. Ing. u. Arch. Ver. May 14, 1897. 62

Parks and Gardens. Haussmann. Allg. Bauz. p. 325, 1872. 63

"Play, Capitals at: Vienna." Robinson, B. Fletcher. Cassell's, p. 496 (April, 1898). 64

Prostitution. "Die Prostitution in Wien, in historischer, administrativer und hygienischer Beziehung." Schraub, Josef. Wien, 1886. 345 pp. 65

"Sewage Disposal, Vienna." Judd, Max. Cons. Rep. 47:240 (1895). 66

——. "Die Marschfeldbewässerung und Verwertung der Wiener Abfallwasser." v. Podhagsky, J. Wien, Civil Techniker, 1892. 8vo, 43 pp. 1m. 60 pf. 67

——. "Die Marschfeldbewässerung und Verwertung der Wiener Abfallwasser." Wodiczka, W. Wien, W. Frick, 1892. 8vo, 31 pp. 1m. 60 pf. 68

——. "Report of a Commission of Experts Concerning the Agricultural Utilization of Vienna Sewage." Pro. Am. Soc. Mun. Imp. (5th yr.) Pt. II, p. 28, Oct. 1898. 69

——"Collecting Sewer on the Right Bank of the Danube Canal at Vienna, The." Zeitschr. d. Oesterr. Ing. u. Arch. Ver. Jan. 28, 1898. 70

Statistics. "Statistisches Jahrbuch der Stadt Wien." Compiled by Stephan, Sedlaczek, Wilhelm Löwy and Wilhelm Hecke. Vienna, Verlag des Wiener Magistrats, published annually since 1882. Edition for the year 1896 appeared in 1898. 891 pp. (See also under **Austria**). 71

"Street Cleaning in Vienna." Judd, Max. Cons. Rep. 47:244 (1895). 72

——. "Street Dust and Street Cleaning in Vienna." von Schoen. Die Zeit May 13, 1899. 73

Street Improvements. "Ueber die Regulirung der Innern Stadt von Wien." Zeitsch. d. Oesterr. Ing. u. Arch. Ver. Feb. 19, 1897. 74

——. Plan. "Betrachtung über den Plan der Donaustadt längs der Regulirten Donau in Wien." Flattich, W. Zeitschr. des Oest. Ing. u. Arch. Ver. p. 1, 1877. 75

——. Plan. "Der Plan von Wien zur Zeit der zweiten Türkenbelagerung." Wellisch. S. Zeitschr. d. Oesterr. Ing. Arch. Ver. Aug. 11, 1899. 76

——. Prize Plan. "Der preisgekronte konkurrenz Plan zur Stadterweiterung von Wien." Föster, L. Allg. Bauz. p. 1, 1859. 77

——. "Die Regulirung des Stadttheiles vom Stadtparke bis zum Theatre a. d. Wien." Hudetz, Jos. Zeitschr. d. Oesterr. Ing. u. Arch. Ver. Oct. 22, 1897. 78

——. "Transformation of Vienna, The." Chapter VIII, p. 410, "Municipal Government in Continental Europe." by Albert Shaw. See 1-5. 79

——. "Wie soll Wien Bauen?" Fellner, F. Wien, 1860. 80

Transit Facilities. "Agreement with the Building and Operating Company for City Street Railways in Vienna, to be Organized in Vienna by the Firm of Siemens & Halske, Regarding the Transformation of the Existing Railway System of the Vienna Tramway Company for Electric Operation and Building of a Supplementary System." Translated from the German by Alderman Ernest F. Hermann, Chicago. 8vo, 28 pp. Pamphlet. 81

Vienna—*Continued.*

——. Building and Operation. "Der Prozess der Bau- und Betriebsgesellschaft für städtische Strassenbahnen in Wien vor dem österreichischen Verwaltungsgerichtshofe." von Feistmantel, H. Ritter. Vienna, 1900. 8vo, 144 pp. 82

——. City Street Railway. Sonnenschein, S. Archiv. für Eisenbahnwesen, part V, 1894; Weinberg. Ueber Land und Meer Heft. 2; anon. Glaser's Annalen Dec. 1, 1897. 83

——. "Electric Traction in Vienna." Ry. World Feb. 1897, 7:367 (Nov. 1898). 84

——. Electric Traction. "Der Elektromotoren-Betrieb in Wien." Pere, Johann. Zeitschr. d. Oesterr. Ing. u. Arch. Ver. July 29, 1898. 85

——. Operation. "Der Betrieb der Wiener Stadtbahn." Gerstel, Gustav. Zeitschr. d. Oesterr. Ing. u. Arch. Ver. Feb. 25, 1898. 86

——. Track. "Der Oberbau der Wiener Stadtbahn." Koestler, Hugo. Zeitschr. d. Oesterr. Ing. u. Arch. Ver. 52:153 (March 9, 1900). 87

——. "Tramway Situation in Vienna, Austria." Ziffer, E. A. St. Ry. J. 13:663 (Oct. 1897). 88

——. "Tramways in Vienna." Jussen, Edmund. U. S. Consular Report No. 92, 1888, p. 97; anon. Ry. W. 7:411 (Dec. 8, 1898). 89

Water Supply. "Der Wasserversorgung Wiens, nach dem offiziellen Protokoll der k. k. Gesellschaft der Aerzte in Wien." Wien, A. Hölder, 1892. 90

——. A Comparison Between Vienna and Paris. "Einige vergleichende Mitteilungen über die Wasserversorgungs-Verhältnisse in Wien und in Paris." Sykora, Carl. Oesterr. Ing. u. Arch. Ver. July 1, 1898. 91

——. "Die Arbeiten der Wienthal-wasserleitung." Zeitschr. d. Oesterr. Ing. u. Arch. Ver. April 16, 24, 30, May 7, 14, 1897. 92

——. High Service. "Das Wasserwerk der wiener Hochquellenleitung." Bokowitz, Franz. Zeitschr. Oesterr. Ing. u. Arch. Ver. Aug. 19, 1898. 93

——. Pumping Station. "Das wiener städtische Schöpfwerk." Wiener Bauindustrie-Zeitung Jan. 14, 1897. 94

——. "The New Pumping Station and Water Tower at Vienna." Engng. Rec. 42:319 (Oct. 6, 1900).

——. "Das städtische Wasserwerk in Favoriten." Wiener Bauindustrie Zeitung June 21, 1900. 95

——. "Wasserwerk der Stadt Wien in X. Bezirk." Borkowitz, Fr. Zeitschr. d. Oesterr. Ing. u. Arch. Ver. 52:53 (Jan. 26, 1900). 96

Village Improvement, Articles on. Northrop, B. G. Forum 19:95 March, 1895); Robbins, Mary Caroline. Atlan. 79:212 (Feb. 1897); anon. Park & Cemt. 7:50, 74 (May, June, 1897). 97

Vincennes, Ind.

"Water Purification at Vincennes, Ind." Engng. News 43:291 (May 3, 1900). 98

——. "Mechanical Filtration, Vincennes, Ind." Engng. Rec. 41:419 (May 5, 1900).

"**Virginia,** Local Institutions of." Engle, E. H. J. H. Univ. Studies III:105 (1888). 99

Vital Statistics of Cities. (See **Statistics of Cities**).

Voters and Voting, Municipal. (See under **Bossism, Elections, Parties**).

"**Wallingford, Conn.,** Municipal Electric Lighting Plant." Perkins, Thomas C. Elec. W. & E. 35:391 (March 17, 1900). 100

"**Walsall, England,** The Sewerage of." Angel, R. J. Engng. Rec. 40:574 (Nov. 18, 1899). 1

Walworth [Eng.] (See under **London**).

Warsaw, Russia, Municipal Electric Plant. "Project für das Elektricitäts-Werk der Stadt Warschau." Lindley, W. H. Frankfurt-am-Main, August Oesterrieth, 1899. 8vo, 156 pp. 2

Wash Houses, Municipal. (See under **Baths, Laundries and Lavatories**).

Washington, D. C.

Government, General References.

City Government, Washington. Lee, M. N. Chaut. 22:39, 164 (1895); Meriwether, C. Pol. Sci. Q. 12:407 (Sept. 1897); Newcomb, S. Nation 18:407 (1874); Nott, C. C. Nation 15:328 (1872), 18:375 (1874), 20:5 (1875); Sedgwick, A. G. Nation 38:335 (1884). 3

"Life in Washington, D. C." Curtis, William E. Chaut. 25:467, 579 (August, Sept. 1897). 4

"Municipal Condition of Washington." Siddons, Frederick L. P. 358, Proc. Second Nat'l Conf. for Good City Govt., 1895. See 6-18b. 5

"The Capital and the Capitol." Chap. XI. in "The Land of the Dollar." by G. W. Steevens. New York, Dodd, Mead & Co., 1897. 12mo, 316 pp. $1.50. 6

"Washington, D. C." Ralph, Julian. Harper 90:657 (1895). 7

"Washington: The City of Leisure." Low, A. Maurice. Atlan. 86:767 (Dec. 1900). 8

Almanac. "The Washington Post Almanac." Washington. Published quarterly by the Washington Post. Edition for First quarter, 1898, 542 pp. 35c. per year. 9

Art. "Competitive Designs for the Connecticut Avenue Viaduct, Washington, D. C." Engng. News 39:54 (Jan. 27, 1898). 10

——. "Landscape in Connection with Public Buildings in Washington." Olmsted, Frederick Law, Jr. Engng. Rec. 42:624 (Dec. 29, 1900). 11

——. "The Monumental Grouping of Government Buildings in Washington." Seeler, Edgar V. Engng. Rec. 42:599 (Dec. 22, 1900). 12

——. (See also Streets below).

"Bridge Across the Potomac, The Memorial." Engng. Rec. 42:362 (April 21, 1900).

"Direct Employment of Labor by the Municipality." Ann. Am. Acad. Pol. Sci. 14:140 (July, 1899). 13

Finance. "Tax Assessments in the District of Columbia, Report of Special Committee to Investigate." Johnson, Tom L. H. R. No. 1469, 52d Congress, 1st Session. 14

"Franchises." West, Max. Ann. Am. Acad. Pol. Sci. 11:426 (May, 1898). 15

"History of Washington, D. C." Vanderlip, F. A. See 1-4c. 16

——. "City of Washington, The: Its Origin and Administration." Porter, John Addison. J. H. Univ. Studies III:11, 12 (1885). 66 pp. 17

——. "Ring Rule, A Study of." Welling, J. C. Nation 42:47 (1886). (A criticism of John Addison Porter's "City of Washington, its Origin and Administration.") 18

——. "Founding of Washington City, The: With some considerations on the origin of cities and location of national capitals." Spofford, Ainsworth R. Address read before the Maryland Historical Society, May 12, 1879. Baltimore, 1881. Printed by the Society. 62 pp. 19

——. "History of the Government of the District of Columbia." Clephane, Walter C. Washington, 1892. 24 pp. 25c. 20

——. "The Story of Washington." Todd, Charles Burr. New York, Putnams, 1889. 416 pp. $1.75. 21

——. "Various Forms of Local Government in the District of Columbia." Bryan, W. B. 55th Congress, 2d Session, Senate Document 238, 1898. Pamphlet, 38 pp. 22

History, Description and Statistics of Washington, D. C., in 1880. See Census. See 1-7. 23

Housing. "Homes in Washington." Hitz, J. Am. J. Soc. Sci. 15:135 (1882). 24

——. "Lodging Houses in Washington, The New Municipal." Warner, A. G. Char. R. 2:279 (1893). 25

"Library in Washington, No Public." Bain, Geo. G. Hrprs. Wkly. 39:809 (1895). 26

"Lighting Company of Washington, D. C., Electric, and its New Electrical Equipment, The United States." Hopkins, Nevil Monroe. Elec. Eng. 26:425 (Nov. 3, 1898). 27

"Municipal Work in Washington, Recent." Engng. Rec. 39:235 (Feb. 11, 1899). 28

"Parks of Washington." Am. Arch. 47:72 (1895).

"Pavements of Washington, D. C." Report of Engineering Department, District of Columbia, 1884. 29

——. "Pavements and Vitrified Brick in Washington, D. C." Brick, May 1, 1900. 30

Washington—*Continued.*

——. "The National Capital: Its Pavements and Parks, and its Form of Government." Mun. Engng. 15:205 (Oct, 1898).

"Sanitation of Washington." Billings, John S. Forum 15:727 (1893); Busey, Samuel C. Sanitarian 42:205 (March, 1899). 31

——. "Sanitary Drainage of Washington." Waring, G. E. Am. Arch. 8:77, 86 (1880). 32

"Sewerage of the District of Columbia." (Rudolph Hering, S. M. Gray and F. P. Stearns, Board of Commissioners). H. R. Ex. Doc. 445, 51st Congress, 1892. 33

——. "Sewage Disposal Project for Washington, The." McComb, D. E. Pro. Am. Soc. Mun. Imp. (5th yr.) Pt. II, p. 63 (Oct. 1898). 34

"Statistics, Vital, of the District of Columbia and Baltimore covering a period of six years ending May 31, 1890." Billings, John S. Washington, Government Printing Office, 1893. 241 pp. Eleventh Census of the United States. 35

"Street Cleaning in Washington." Engng. Rec. 39:470 (April 22, 1899). 36

Street Improvement. "Shepherd Improvements of the City of Washington, The." P. 573, John Addison Porter's "City of Washington." J. H. Univ. Studies III:11 and 12 (1885). 37

——. "Street Extension Plan for the Entire District of Columbia, A." Richards, William P. Pro. Am. Soc. Mun. Imp. (5th yr.) Pt. II, p. 138, Oct. 1898. 38

Transit Facilities. "Street Railways of Washington, D. C., The." Anon. St. Ry. J. Dec. 1894, St. Ry. R. 9:365 (June 15, 1899). 39

——. "The Displacement of the Cable by the Underground Trolley in Washington." Hopkins, N. M. Elec. Eng. 24:526 (Dec. 2, 1897). Another article, anon. Engng. N. 39:124 (Feb. 24, 1898). 40

——. "The Open Conduit Electric System of the Capital Traction Company." Elec. World 32:707 (Dec. 31, 1898). 41

——. "Work on the Capital Traction, Washington." St. Ry. Rev. 8:14 (Jan. 15, 1898). 42

"Tree Planting in the Streets of Washington." Richards, William P. Pro. Am. Soc. Mun. Imp. (5th yr.) Pt. II, p. 97 (Oct. 1898), Mun. Engng. 15:287 (Nov. 1898). 43

"Water Supply Problem in Washington, The." Engng. Rec. 37:313 (March 12, 1898). 44

——. "Filtration of the Washington Water Supply." Engng. Rec. 41:443 (May 12, 1900).

——. "Polluted Water Supply, Washington's." Busey, S. C. Sanitarian 40:385 (May, 1898). 45

——. "Purification Experiments at Washington, D. C., Water." Engng. News 42:373 (Dec. 7, 1899). 46

——. "Report on Water Purification Experiments at Washington, D. C." Engng. News 43:315 (May 17, 1900).

——. "Reservoir, The Brightwood, Washington, D. C." Engng. Rec. 41:193 (March 3, 1900).

——. "Waste and Use in Washington, Water." Gaillard, D. D. Engng. Rec. 42:277 (Sept. 22, 1900). 47

"What Women Have Done in Washington's City Affairs." Hosmer, Katharine. Mun. Aff. 2:514 (Sept. 1898). 48

Water Supplies of Cities.

See also Aberdeen, Albany, Allegheny City, Altoona, Amballa, Ashland (Wis.), Atlanta, Austria, Basle, Bellary, Berlin, Berwyn, Bilston (Eng.), Birmingham, Bombay, Boston, Brooklyn under New York, Budapest, Buffalo, Calbe, California, Cambridge (Mass.), Camden, Canada, Cardiff, Chatham, Chattanooga, Chicago, Chillicothe, Cincinnati, Cleveland, Colorado Springs, Columbus, Concord (N. H.), Constantinople, Cumberland, Danville, Dayton, Denver, Detroit, Dresden Duluth, Eastbourne (Eng.), Edinburgh, Erie, Florence (Colo.), Florida, Frankfort (Ger.), Galveston, Germany, Glasgow, Grand Rapids, Great Britain under United Kingdom, Halle, Hamburg, Harrisburg, Huddersfield, Illinois, Jersey City, Kettlewell, Khandwa (India), Kawloon, Landsberg on Wartha, Lancaster, Laodicea, Lawrence, Leighton Buzzard, Lexington (Ky.), Little Falls, Liverpool, London, Lorain (Ohio), Loughborough, Los Angeles, Louisville, Madison, Madgeburg, Manchester (Eng.), Massachusetts, Media (Pa.), Melbourne, Merthyr Tydvil, Milwaukee, Minneapolis, Mt. Vernon (N. Y.), Munich, Nashville, Newark, New Bedford, Newburyport (Mass.), New Jersey, New Orleans,

Water Supplies of Cities—*Continued.*

New York, Norfolk, North Carolina, North Tonawanda, Nyack, Ohio, Omaha, Orange (N. J.), Panama, Paris, Petrolea (Can.), Philadelphia, Pittsburg, Plymouth, Portland (Eng.), Poughkeepsie, Prenzlau, Providence, Provincetown (Mass.), Purleigh, Reading, Rhode Island, Rhondda (Wales), Richmond (Va.), Rochester, Rockford, Rome, St. Louis, St. Paul, San Francisco, Scutari, Simla, Skaneateles, Southampton, South Australia, Steubenville (Ohio), Syracuse, Toledo, Toronto, Torquay, Versailles, Vienna, Vincennes, Washington, White Plains, Williamsport, Wilmington, Zurich.

"Air Lift, The." Engng. Rec. 38:317 (Sept. 10, 1898).

"Analysis, Water." Wanklyn, J. Alfred, and Chapman, E. T. London, Trübner, 1874-79, 3d to 5th edit. 8vo. 5s. 49

——. "Examination of Water, Chemical and Bacteriological." Mason, William P. New York, Wiley & Sons, 1899. 12mo, 137 pp. Cl. $1.25. 50

——. "Some Results of the Systematic Examination of the Water of Public Supplies." Goodnough, X. H. J. N. E. W. W. Assoc., Sept. 1899. 51

——. "Standard Methods of Water Analysis." Fuller, George W. Engng. Rec. 42:397 (Oct. 27, 1900). 52

"Ancient Water Works." Mansergh, James. Engng. Rec. 42:517 (Dec. 1, 1900). 53

——. "Early Methods of Collecting, Storing and Distributing Water." Hill, William R. Mun. Engng. 15:12 (July, 1898), Fire & W. 24:257, 264 (Aug. 6, 13, 1898). 54

"Assessments for Water Mains." Engng. Rec. 37:533 (May 21, 1898). 55

"Bacteriology of Water Supply, The." Frankland, Edward. San. Rec. 19:595 (June 18, 1897). 56

——. "Bacteriological Examination of Water Supplies, The." Armstrong, Henry. San. Rec. 23:543 (June 23, 1899). 57

——. "On the Necessity of Cultivating Water Bacteria in an Atmosphere Saturated with Moisture." Whipple, George C. Reprinted from Technology Quarterly, Vol. 12, No. 4, Dec. 1899. 58

——. "Soil Bacteriology and its Relation to Water Supplies." Hunter, John. San. Rec. 20:1497 (Aug. 6, 1897). 59

Bibliography of Water Supply. "Litteratur des Gas- und Wasserfaches." Steude, M. München, R. Oldenbourg. 8vo, 78 pp. 2m. 60

"Bookkeeping for Water Companies, Model System of." Grimshaw, Robert. Mun. Engng. 12:76, 353 (June, Aug. 1897); anon. Mun. Engng. 12:149, 218, 292 (March, April, May, 1897). 61

"Capacities of Water Works Systems." Mun. Engng. 13:86 (Aug. 1897). 62

"Chalk, Water Supply from the." Builder Dec. 17, 1898.

"Consumption of Water by Cities and Towns." Ayres, H. W. Proc. American W. W. Association 8:46 (1888). 63

——. "Increase of Water Consumption." Fire & W. 26:370 (Nov. 4, 1899).

——. "Notes on Consumption of Water." Williams, G. S. Technic. (Univ. of Mich.), 1897. 64

——. "Rate of Water Consumption." Freeman, John R. Engng. Rec. 42:163 (Aug. 4, 1900). 65

——. "Waste of Water in Cities, Consumption and." Brackett, Dexter. Trans. Am. Soc. Civil Engineers 34:185 (1895). 66

——. "On the Water Circulation of Great Cities." Scottish R. 7:264 (1886).

——. (See Meters and Waste below).

"Contracts in Water Works Business, Special." Maury, D. H. Mun. Engin. 13:24 (July, 1897). 67

"Control of Public Water Supplies." San. Rec. 21:392 (April 15, 1898).

"Cost of Water Plants." City Govt. 4:61 (Feb. 1898).

"Difficulties in Obtaining a Water Supply, Some." Milner, Willis J. City Govt. 6:105 (May, 1899), Engng. Rec. 39:590 (May 27, 1899). 68

"Direct Pressure Water Supply, Relief from Violent Fluctuation in." Heim, John B. Mun. Engng. 13:27 (July, 1897), City Govt. 3:93 (Sept. 1897). 69

Electric Lighting Stations and Water Works combined. "Elektrische Beleuchtungszentralen in Verbindung mit Wasserwerken." Die Elektrizität Feb. 27, 1897. 70

Electrolysis. (See **Electrolysis**).

Water Supplies of Cities—*Continued.*

"Engineering, Water Works." Shields, W. S. Mun. Engng. 16:150 (March, 1899). 71

——. "Elements of Water Supply Engineering." Gould, E. Sherman. New York, Engineering News Pub. Co., 1899. 8vo, 168 pp. $2. 72

——. "Water Supply, Engineering." Folwell, A. Prescott. New York, Wiley & Son, 1900. 8vo, 562 pp. Cl. $4. 73

"European Cities, Water Supply and Sewage Disposal in large." Billings, J .S. Engng. Rec. Nov. 10, 1894. 74

——. "Water Supply of Various European Cities." Hazen, Allen. J. N. E. W. W. Assoc. Dec. 1894, J. Assoc. Engng. Soc. Feb. 1895. 75

——. "Water Works of Europe, European Continent." (Paris, Florence, Moscow, Vienna, Munich, Frankfort-a-M., Geneva, Zurich). Philadelphia, Commercial Museum, 1899. 8vo, 41 pp. Pamphlet. 76

"Fermentation, The Cause and Prevention of Water." McElroy, Samuel. Engin. M. 13:535 (July, 1897), Sanitarian 39:141 (Aug. 1897). 77

Filtration of Water Supplies, General Articles on. Clark, H. W. J. N. E. W. W. Assoc. Sept. 1899; Fuller, George W. Engng. Rec. 39:593 (May 27, 1899); Hazen, Allen. Mun. Engng. June, 1896; Hering, Rudolph. Engng. M. 11:627 (1896); Hooker, Samuel C. The Citizen 1:179 (1895); Hungerford, Churchill. Sci. Am. 77:68 (July 31, 1897); Knowles, Morris. Engng. Rec. 42:304 (Sept, 29, 1900); Smith, Edwin. Sanitarian 36:425 (1896); Weston, Edmund B. Mun. Engng. 13:199 (Oct. 1897), Engng. N. 38:239 (Oct. 7, 1897), City Govt. 3:155 (Nov. 1897); anon. Sci. Am. 79:310 (Nov. 12, 1898); J. Gas Light 76:217 (July 24, 1900); Engng. Rec. 39:241 (Feb. 11, 1899). 78

——. "Aeration, Water Filtration and." Charles, S. A. City Govt. 5:25 (July, 1898), Mun. Engng. 15:23 (July, 1898). 79

——. "Alum in Water Filtration, The Benefit of." Chapin, Charles V. Sanitarian 45:431 (Nov. 1900). 80

——. "An Improved Method of Filtration." (System in Operation in Worms, Kiel, Winterthur and other German Cities). Mason, Frank H. Consular Reports Feb. 1897. Extracts in the Sanitarian 38:289 (April, 1897), City Govt. 2:72 (March, 1897), and Arch. & Buil. 26:141 (March 20, 1897). 81

——. "Another large Filtration Scheme." City Govt. 6:114 (May, 1899).

——. "Europe, Filtration of Water in." Giles, William A. City Govt. 1:94 (1896). 82

——. "Experimental Water Filtration Plant, An: Its Design, Use, Economy and Value." Davis, Floyd. Mun. Engng. 19:320 (Nov. 1900). 83

——. "Filtration of Public Water Supplies, The." Hazen, Allen. (3d Edition). New York, Wiley & Son, 1900. 8vo, 321 pp. Cloth, $3. 84

——. Graded Filters for Large Quantities of Water. "Filtres Dégrosseurs pour Grandes Masses D'Eau." Peuch, A. Mem. Soc. d. Ing. Civils de France Nov. 10, 1900. 85

——. "Les Eaux de Rivères Filtrées." Hauriot. Ann. D'Hyg. Pub. 43:442 (May, 1900). 86

——. Mechanical Filtration. Bristowe, Frederick. San. Rec. 21:201 (Feb. 25, 1898); Mason, W. P. Mun. Engng. 15:23 (July, 1898); Weston, Edmund B. J. N. E. W. W. A. 14:333 (June, 1900); anon. Engng. Rec. 40:435 (Oct. 7, 1899), 41:223 (Mar. 10, 1900). 87

——. "Mechanical and Slow Sand Water Filtration." Engng. News 41:102 (Feb. 16, 1899).

——. "New Filtration Process." Ludwig, Charles V. F. Pub. Imp. 2:217 (Mar. 15, 1900). 88

——. "Plaque System of Filtration of Water Supplies, The." San. Rec. 20:307 (Sept. 17, 1897). 89

——. Sand Filtration. Fowler, Charles E. J. N. E. W. W. Assn. June, 1898; Lea, R. S. Sanitarian 42:289 (April, 1899), Trans. Can. Soc. Civ. Eng. 13:33 (1899); Ledoux, J. W. Pro. Eng. Club 16:108 (Mar. 1, 1899); anon. Engng. Rec. 37:343 (Mar. 19, 1898), 38:7 (June 4, 1898). 90

——. "Sand and Mechanical Filters, Relative Applicability." Fuller, Geo. W. J. N. E. W. W. Assn. Sept. 1899. 91

——. "Sand Filtration, Purification of City Water Supplies by." Firth, Frank J. Pamphlet, reprinted from Annals of Hygiene, U. of P. Press. 1896. Pamphlet, 12 pp. 92

——. "Surface Waters, Filtration of." Odling, William. London, 1893. 93

Water Supplies of Cities—*Continued.*

——. "Unfiltered Surface Water Unsafe Town Supply." Leffmann, Henry. "13th Annual Report of the State Board of Health * * * of Pennsylvania," p. 295. Harrisburg, 1898. 94

——. (See also Purification below.)

"Financial Management of Water Works, The." Kuichling, E. Pro. Am. Soc. Civil Eng. April, 1897. Mun. Engng. 13:207 (Oct. 1897). 95

——. "Financial Management of Water Works." (Statistics of Municipal Works only.) Coffin, Freeman C. J. N. E. W. W. Assn. Sept. 1897. 96

——. "Increased Revenue, Free Service Pipes and Filtration." Gwinn, Dow R. Mun. Engng. 13:28 (July, 1897), Fire & W. June 12, 1897, City Govt. 3:60 (Aug. 1897). 97

——. "Water Works Economy." Pater, Joseph J. City Govt. 6:29 (Feb. 1899). 98

"Fire Protection, Water Works, Hydrants, etc." Freeman, John R. J. N. E. W. W. Assoc. 7:49, 152 (1892); Abstract in Engng. Rec. July 16, 1892. 100

"Flow of Water over Dams, The." Engng. Rec. 41:591, 616 (June 23, 30, 1900). 1

"Free Water Supply." (Plan proposed by Hazen S. Pingree of Detroit, Mich). Engng. News Jan. 25, 1894. 2

"High Buildings, New System of Water Supply for." Huyette, W. S. Heating & Ventilation (New York), April 15, 1897. 3

"Hot Water from Street Lamps." Am. Gas Light J. 67:611 Oct. 18, 1897).

——. "Penny-in-the-Slot Hot Water." London 6:759 (Sept. 16, 1897).

"Hydrant Rentals, A Side Light on." Engng. Rec. 39:133 (Jan. 14, 1899).

"Investigation of Public Water Supplies." Davis, Floyd. Engng. M. 10:439 (1895); Newell, F. H. Mun. Engng. 14:76 (Feb. 1898). 4

——. "Investigation of Quality of Water for Public Use." Tuttle. A .S. Mun. Engng. 11:351 (Dec. 1896). 5

"Laboratories, Municipal Water Works." Whipple, George C. Pop. Sci. Mo. 58:172 (Dec. 1900). 6

"Law Relating to Water Supply." Pearmain, T. H., and Moor, C. G. San. Rec. 22:236, 264 (Sept. 2, 9, 1898). 7

——. "The Right to Shut Off Water." Engng. Rec. 37:489 (May 7, 1898).

"Lectures on Water Supply, Sewerage and Sewage Utilization." Corfield, W. H. London, Spon, 1874. Paper, $1. 8

"Locating a Public Water Supply." Mead, Daniel W. Engng. M. 10:876 (1895). 9

Mains. "Faulty Construction in Water Works Pipes." Cameron, W. L. Mun. Engng. 13:31 (June, 1897). 10

——. "Hydraulic Mains, A Difference in." Egan, P. Prog. Age 15:389 (Sept. 1, 1897). 11

——. "Laying Small Sized Water Mains." Heim, John B. Mun. Engng. 13:27 (July, 1897). 12

——. "Tables for Estimating the Cost of laying cast-iron water pipe." Weston, Edmund B. New York, Engineering News Pub. Co., 2d ed., 1896. Pamphlet. 8vo, 12 pp. 25c. 13

——. "Water Pipes on Metropolitan Water Works." Brackett, Dexter. J. N. E. W. W. Assoc. June, 1899. 14

"Management, A Lesson in Water Works." Croes, J. James R. Engng. Rec. 40:545 (Nov. 11, 1899); anon. Eng. Rec. 40:52 (June 17, 1899). 15

"Meters, Water." Rider, Joseph B. Fire & W. May 29, 1897. 16

——. "An Object Lesson." (Water Meters). Bolling, Charles E. City Govt. 6:105 (May, 1899). 17

——. "Consumption and Use of Meters, Statistics." Engng. News Jan. 16, 1892, p. 61.

——. "Popular Errors about Water Meters." Trautwine, John C. Paper presented to Engineers' Club of Philadelphia, 1899, pamphlet, 9 pp., City Govt. 5:195 (Nov. 1898). 18

——. "Prepayment Meters." Ross, R. Gas W. Aug. 13, 1898; Wilson, Andrew. Am. Gas Light J. Sept. 19, 1898, Gas W. Aug. 6, 1898. 19

——. "Present Day, Water Meters of the." Schönheyder, William. Surveyor 17: 157 (Feb. 9, 1900). 20

——. "Progress of Water Meterage, The: Report from Harrisburg." Fire & W. March 6, 1897.

Water Supplies of Cities—*Continued.*

——. "Rates, Water Meters and." Heim, John B. City Govt. 4:207 (June, 1898), Fire & W. 23:209 (June 25, 1898), Mun. Engng. 15:17 (July, 1898). 21

——. "Waste, Value of Meters in Restricting." Case, L. N. Fire & W. June 26, 1897. 22

——. "Water Meters to Check Waste." Gemuender, M. A. City Govt. 2:71 (Mar. 1897). 23

——. "Water Meters in Municipal Supply." San. Rec. 22:566 (Nov. 25, 1898).

——. (See also Consumption, and Rates, above.)

Municipal Ownership. (See under **Municipal Control,** etc.)

"Municipal Water Works, Some Hints as to the Management of." Ulrich, C. F. pp. 160-164 in "Pro. of the 20th Annual Meeting of the American W. W. Assn. Richmond, Va., May 15-18, 1900." 8vo, 216 pp. Cloth, $1. (See also under **Municipal Control.**) 24

"Plain Talk from a Water Works Manager." Engng. Rec. 39:236 (Feb. 11, 1899).

"Pollution of Water and its Correction, The." Middleton, Reginald E. Mun. Engng. 14:137 (March, 1898); anon. Mun. W. 8:107 (July, 1898). 25

——. "An Injunction against Sewage Pollution of a California Steam." (Editorial.) Engng. Rec. 38:67 (June 25, 1898).

——. "Bacteriology of Soils with Reference to the Pollution of Water, The." Whipple, George C. Engng. Rec. 42:134 (Aug. 11, 1900). 26

——. "Contamination of our Municipal Water Supplies." Thornbury, Frank J. Chaut. 24:197 (1896). 27

——. "Detecting Impurities, Potable Water and Methods of." Baker, M. N. New York, Van Nostrand Co., 1899. 12mo, 97 pp. 50 cts. 28

——. "Incidental Pollution, Public Water Supplies Liability to." McKenzie, T. H. Sanitarian 45:428 (Nov. 1900). 29

——. "Legislation to Prevent Water Pollution, Proposed State." (Editorial.) Engng. News 41:169 (March 16, 1899).

——. "Locating and Removing Sources of Pollution from a Surface Water Supply." Sherrerd, Morris R. Mun. Engng. 13:278 (Nov. 1897). 30

——. "Manufacturing Wastes, Water Pollution by." Mun. Engng. 17:26 (July, 1899).

——. "Pollution of Water Supplies, Report of Committee appointed by the American Public Health Association." Proc. Am. Pub. Health Assoc., 1889. Pamphlet, 19 pp. 31

——. "Pollution of Water Supplies, Report on." Smart, Charles. Sanitarian Dec. 1896. 32

——. "Pollution of Public Water Supplies, The." Engng. Rec. 42:421 (Nov. 3, 1900).

——. "Prevention of Pollution of Streams and Rivers, The." Childs. Builder Dec. 31, 1898; anon. Engng. Rec. 38:243 (Aug. 20, 1898). 33

——. Protection of Water Supplies. Anon. City Govt. 8:2 (Jan. 1900); Sedgwick, W. T. J. N. E. W. W. Assoc. March, 1897. 34

——. "Public Water Supplies and the Prevention of the Pollution of the Same." Fuertes, James H. Proc. 24th An. Meeting N. J. Sanitary Assoc., 1898, p. 77. 35

——. "River Pollution." Dechan, Bailie. San Rec. 20:558, 613 (Nov. 19, Dec. 3, 1897). 36

——. Wells. "Sur la Contamination des Puits." Duclaux, M. Comptes Rendus 125:913 (Dec. 6, 1897). 37

"Present Tendencies in Water Works Practice." Engng. News 37:232 (April 15, 1897).

"Procuration of Water Supply, The." Sarles, W. T. San. Rec. 20:727 (Dec. 31, 1897). 38

"Public and Private Rights in River Waters." Engng. Rec. 40:576 (Nov. 18, 1899).

Pure Water. Austen, P. H. Engng. M. 1:95 (1891); Huston, C. D. City Govt. 7:113 (Nov. 1899); anon. Engng. N. June 4, 1896; City and State 5:374 (Dec. 15, 1898), 6:418 (June 29, 1899). 39

——. "Pure Water for Drinking and Cooking, a municipal problem of the very highest importance." Axtell, S. P. Engng. M. 11:67 (1896). 40

——. "The Purity of Water Supply." Hoppes, John J. Pp. 39-42 in "Second An. Conv. of the Central States W. W. Assoc., Springfield, O., Sept. 27-29, 1898." 41

Water Supplies of Cities—*Continued.*

——. "What is a Good, Pure, Wholesome Water?" Mason, W. P. City Govt. 6:106 (May, 1899). 42

Purification of Water Supplies, Articles on. Cottrell, Henry E. P. Engng. (London) 66:253 (Aug. 26, 1898); Davis, Floyd. Engin. M. 2:819 (1892); Hazen, Allen. Engng. M. 15:249 (May, 1898); Kummel, W. Trans. Am. Soc. Civil Engrs. Nov. 1893; Leeds, Albert R. Cassier's M. Feb. 1897; Mason, W. P. Mun. Engng. 12:357 (June, 1897); Parry, W. Kaye. San. Rec. 25:27 (Jan. 12, 1900); Rohe, George M. Lend a H. 17:166 (1896), Sanitarian July, 1896; Thornburg, F. J. Chaut. 24:576 (Feb. 1897); Twelvetrees, W. N. San. Rec. 23:253 (March 24, 1899); Yaryan, Homer T. Eng. 35:55 (March 1, 1898); anon. Eng. 86:255 (Sept. 9, 1898); San. Rec. 22:96 (July 22, 1898); Engng. Rec. 42:313 (Oct. 6, 1900). 43

——. "A Water Purifying Plant." Stillman, Howard. Engng. News 38:356 (Dec. 2, 1897), Trans. Am. Soc. of Mech. Engrs. Dec. 1897. 44

——. "Aeration, Purifying Water by." Heysinger. Fire & W. 22:370 (Oct. 9, 1897). 45

——. "An Outline of the Present Status of Water Purification." Fuller, George W. Mun. Engng. 16:377 (June, 1899), Fire & W. 26:240 (July 29, 1899). 46

——. "Bacterial Purification of Water, The." Rideal, Samuel. Engng. Rec. 40:245 (Aug. 12, 1899). 47

——. "Clarification of River Waters, The." Hazen, Allen. J. Frankl. Inst. 147:177 (March, 1899), Engng. Rec. 39:377 (March 25, 1899), Mun. Engng. 16:233 (April, 1899). 48

——. "Metallic Iron, Purification of Water by." Chancellor, C. W. Am. Arch. June 5, 1897. 49

——. "Nature in Purification of Water, Man's Imitation of." Swarts, Gardner T. J. N. E. W. W. Assoc. 13:1 (Sept. 1898). 50

——. "Ozone, The Purifying and Sterilizing of Water by." Elec. Dec. 28, 1898. 51

——. "Ozone, The Purification of Drinking Water by the Use of." Soper, George A. Engng. News 42:250 (Oct. 19, 1899). 52

——. "Purification of Public Water Supplies, The." Hill, John W. New York, Van Nostrand Co., 1898. 8vo, 304 pp. Cl. $3. 53

——. "Purification of Sewage and Water." Dibdin, W. J. San. Rec. 20:249 (Sept. 3, 1897). 54

——. "Recent Progress in Water Purification." Fuller, George W. Pp. 76-80 in "Proc. of the Fourth General Conference of Health Officers in Michigan, 1899." 55

——. "Water and its Purification, a Handbook for the use of local authorities, sanitary officers and others interested in water supply." Rideal, Samuel. London, Crosby, Lockwood and Son, 1897. 8vo, 292 pp. 7s. 6d. 56

——. "Water Supply and Purification Works at Parkville and Bethany, Mo." Kiersted, Wynkoop. Engng. News 42:388 (Dec. 14, 1899). 57

——. (See also Filtration above.)

Rates. "Abolition of Water Rates." (Editorial.) Mun. Engng. 17:162 (Sept. 1899).

——. "Basis of Water Rates." (Editorial.) Engng. Rec. 38:485 (Nov. 5, 1898).

——. "Comparison of Water Rates and Rules." Maury, Dabney H., Jr. Mun. Engng. 13:132 (Sept. 1897). 58

——. "Meters versus Flat Rates." Schuchardt, R. F. Elec. Eng. 24:406 (Oct. 28, 1897), Am. Gas Light J. 67:732 (Nov. 8, 1897). 59

——. "Selling Water by Meter Rates vs. Flat Rates." Smith, Frank C. Pp. 17-21 in "1st Rep. Central States W. W. Assoc., Columbus, O., Feb. 7-8, 1898." 60

——. "Right to Sell Water by Meter Rates, The." Engng. Rec. 37:401 (April 9, 1898).

——. (See also Meters above.)

"Reports, Proposed Forms of Water Works." Pro. Am. Soc. Mun. Imp. (5th yr.) Pt. II, p. 191, 1898.

"Reservoirs, Cleaning." Gwinn, Dow R. Mun. Engng. 15:21 (July, 1898). 61

——. "Cisternage and Constant Water Service." Alexander, Hugh. San. Rec. 24:389 (Nov. 3, 1899). 62

——. "Compensating Reservoirs for Gravity Water Supplies in lieu of Compensation for Riparian Rights and its Legal Aspects." Babcock, Stephen E. City

Water Supplies of Cities—*Continued.*

Govt. 4:212 (June, 1898). 63

——. "Storage Reservoirs and Rainfall." Fox, William. San. Rec. 19:615 (June 25, 1897). 64

"Sanitary Problems connected with Municipal Water Supply." Mason, W. P. J. Frankl. Inst. 143:337 (May, 1897), San. Rec. 20:229 (Aug. 27, 1897). 65

——. "Control and Supervision of Public Water Supplies by Sanitary Authorities." Porter C. Sanitarian Nov. 1896. 66

——. "Death Rate in Cities, Influence of Sewerage and Water Supply on the." Smith, Erwin F. Supplement to the Report of the Michigan Board of Health for 1885. 168 pp. 67

——. "Impure and Unwholesome Water and Its Experimental Improvement." Davis, Floyd. Mun. Engng. 19:69 (Aug. 1900). 68

——. "Impure Water and Public Health." Davis, Floyd. Engng. M. 2:359 (1891). 69

——. "Is our Drinking Water Dangerous?" Hill, John W. Proceedings American Water Works Association, 1893. 70

——. "Sanitation of Drinking Water, The." Thornbury, Frank J. Arena 17:956 (May, 1897). 71

——. "The Water We Drink, Its Influence on the Health of the Community." Supplement to the Sanitary Record of April 30, 1897, p. 48. 72

——. "Watershed Areas and Sanitary Districts Coterminous, The Desirability of Making." Middleton, R. E. J. N. E. W. W. Assn. 13:199 (Dec. 1898). 73

——. "Watersheds of City Water Supplies, Dangers of Sanitary Neglect of." Mason, W. P. Sanitarian 38:385 (May, 1897). 74

——. "Water and Public Health." Fuertes, James H. New York, Wiley & Sons, 1st ed., 1897. 12mo, 85 pp. Cl. $1.50. 75

——. "Water Supply, considered principally from a Sanitary Standpoint." Mason, William P. New York, J. Wiley & Sons, 1897. 8vo, 504 pp. Cl. $5. 76

——. "Water Supply, considered mainly from a chemical and Sanitary Standpoint." Nichols, William Ripley. New York, Wiley & Sons, 1883. 8vo, 232 pp. Cl. $2.50. 77

"Sedimentation Basins for Water Works." Kiersted, Wynkoop, Engng. Rec. 40:506 (Oct. 28, 1899). 78

"Sewage, Water Supply and." Arey, C. O. Sanitarian 38:126 (Feb. 1897). 79

"Small Towns and Rural Districts, Water Supply of." Griffith, Percy. J. Gas Light (London) Jan. 26, 1897. 80

——. "Cheap Water for a Small Town." Engng. Rec. 37:452 (April 23, 1898).

——. "Financial Standpoint, Town Water Works from a." Hedenberg, W. L. Mun. Engng. 15:341 (Dec. 1898). 81

——. "Model Water Works for Small Towns." Moore, C. E. Cal. Mun. 1:9 (Aug. 1899), City Govt. 7:86 (Oct. 1899). 82

——. "Water Works for Small Cities and Towns." "Aquarius." Engng. Rec. 36:292, 492 (Sept. 4, Nov. 6, 1897); anon. Engng. Rec. 37:296, 496 (March 5, May 7, 1898); Goodell, John. New York, Engng. Rec. 1899. 8vo, 281 pp. Cl. $2. 83

——. "Water Supplies for Towns and Country Places." Palmer, Arthur W. City Govt. 5:222 (Dec. 1898). 84

"Sources of Water Supply and Disease, Notes on the Relation between the Geology of the." Manson, Marsden. J. Assoc. Engng. Soc. 24:321 (May, 1900), Mun. Engng. 19:11 (July, 1900), Cal. Mun. 2:175 (July, 1900). 85

——. "The Sources of Town Water Supplies, and their Bearing Upon the Public Health." Berrington, R. E. W. Jour. Gas. Lgt. June 14, 1898. 86

——. "Water and Public Health, the relative Purity of Waters from different sources." Fuertes, James H. New York, J. Wiley & Sons, 1897. 12mo, 75 pp. Cl. $1.50. 87

"State Supervision of Water Supply and Sewage Disposal, Proposed." Harmon, Jacob A. Ill. Soc. of Eng. & Surv. 1898. 88

——. "Duty of the State in Protecting Sources of Public Water Supplies." Probst, C. O. City Govt. 6:145 (June, 1899). 89

Statistics. "Handbook of Water Works Statistics and Fire Department Equipment." (U. S. and Canada.) New York, F. W. Shepperd, published annually, 18th year, 1897. 8vo, 458 pp. 90

Water Supplies of Cities—*Continued.*

"Transfer of the Watertown Water Works, The." Engng. Rec. 39:350 (March 18, 1899).

"Typhoid Fever and Water Supply." Benjamin, S. Sci. Am. Supp. June 11, 1887; Mills, Hiram T. J. N. E. W. W. Assoc. June, 1891, p. 149; anon. Engng. News April 2, 1893, p. 326. 91

——. "Effect of a Pure Water Supply on Typhoid Fever in Newark and Jersey City, The." (Editorial.) Engng. News 38:217 (Sept. 30, 1897). 92

——. "Les Eaux Sources et la Fièvre Typhoide." Thoinoit. R. Municipale 3:1931, 1947 (Feb. 24, March 3, 1900). 93

——. "Statistics, Typhoid Fever, from large Cities of the World." Appendix A, p. 268, "Purification of Public Water Supplies." Hill, John W. New York, Van Nostrand, 1898. 8vo, 304 pp. $3. 94

——. "Typhoid Fever and Water Supply in Sixty-six American and Foreign Cities." Hill, John W. Engng. News May 21, 1896. 95

——. "Typhoid Fever Rates, Water Supplies of eight Cities in Relation to." Hill, John W. Sanitarian 38:531 (June, 1897). 96

Underground Water, The Law of. Cecil, Robert. Engng. Rec. 40:632 (Dec. 2, 1899); Mansergh, James. San. Rec. 19:565 (June 11, 1897). 97

"Valuation of Water Works, The." Engng. Rec. 37:298, 322 (March 5, 12, 1898).

——. "Valuation of Water Works Property." Kiersted, Wynkoop. Proc. Am. Soc. Civil Engineers March, 1897. 98

——. "What is a Water Plant Worth?" Brown, Charles Carroll. Mun. Engng. 15:97 (Aug. 1898). 99

"Waste, Water." Beardsley, Joseph. J. Assoc. Engng. Soc. 23:248 (Dec. 1899), Mun. Engng. 18:117 (Feb. 1900), Public Policy 2:332 (May 26, 1900). 100

——. "British View of Water Waste, A." Engng. Rec. 41:150 (Feb. 17, 1900). 1

——. "Causes and Corrections of Water and Gas Main Leakage." Sci. Am. Supp. 48:20048 (Dec. 23, 1899). 2

——. "Leakage, Water." Bayles, James C. Public Imp. 1:26 (May 15, 1899). 3

——. "Leakage from Street Mains, The." Croes, J. James R. Engng. Rec. 40:537 (Nov. 4, 1899). 4

——. "Localizing and Preventing Water Waste." Croes, J. James R. Engng. Rec. 42:227 (Sept. 8, 1900). 5

——. "Loss of Water from Pipes." Crandall, F. H. Mun. Engng. 14:193 (April, 1898); anon. Engng. Rec. 37:279 (Feb. 26, 1898). 6

——. "Prevention, Water Waste and its." Case, L. N. City Govt. 3:163 (Nov. 1897). 7

——. "Prevention, Waste of Water in Public Supplies and its." Hope, Wm. Proc. Inst. Civil Engineers 110:260 (1892). 8

——. "Reduction of Water Waste, The." Sherrerd, Morris R. Engng. Rec. 40:458 (Oct. 14, 1899). 9

——. "Relation between Cost of Water Wasted and Cost of Detection and Prevention of Waste." Jenkins, A. J. J. Gas Light. 76:88 (July 10, 1900), Surveyor 18:68 (July 20, 1900). Another article, anon. Engng. Rec. 42:81 (July 28, 1900). 10

——. "Use and Misuse of Water." Berrington, R. E. W. Plumber and Decorator (London) Dec. 1, 1896. 11

——. "Use and Waste of Water, The." Croes, J. James R. Engng. Rec. 42:196 (Sept. 1, 1900). 12

——. "Water Famines and Water Waste." (Editorial.) Fire & W. 25:194 (June 17, 1899). 13

——. "Water Waste in the Olden Time." Engng. Rec. 40:333 (Sept. 9, 1899). 14

——. (See also Consumption and Meters above.)

Water Supplies, General Articles on. Bouscaren, G. Mun. Engng. 19:259 (Oct. 1900); Davis, Floyd. Engng. M. 3:227 (1892); Ficklen, John R. Ann. Am. Acad. Pol. Sci. 15:291 (March, 1900); Hering, Rudolph. Engng. M. 9:450 (1895); Hillyer, George. City Govt. 5:54 (Aug. 1898); McElroy, Samuel. Engng. M. 6:821 (1894); Mansergh, James. Surveyor 18:564 (Nov. 16, 1900); Ulrich, C. F. Fire & W. 26:256 (Aug. 12, 1899); Watson, W. M. Can. Eng. June, 1897; Wingate, Charles F. No. Am. R. 136:364 (1883); anon. City Govt. 1:139 (Dec. 1896); Eng. 89:654 (June 22, 1900); Fire & W. June 9, 1894; Engng. Rec. 41:73 (Jan. 27, 1900). 15

Water Supplies of Cities—*Continued.*

——. "Water and Water Supplies." Thresh, J. C. London, Rebman Pub. Co., 1896. 8vo, 454 pp. Cl. $3.20. 16

——. "Water and Water Supply." Corfield, William Henry. New York, Van Nostrand, 1875. 145 pp. 50 cts. 17

——. "Water Supply." Mason, William P. New York, Wiley & Sons, 2d ed., 1899. 8vo, 512 pp. Cl. $5. 18

——. "Water Supply for Cities." Address before the Faculty and Students of the Univ. of Illinois. Hill, John C. 1896, pamphlet, 22 pp. 19

——. "Water Supply, Sewerage and Sewage Disposal." Mansergh, James. Surveyor 18:538 (Nov. 9, 1900). 20

"Wells, Public Water Supplies from Driven." Kuichling, E. City Govt. 8:96, 125, 152 (April, May, June, 1900), 9:15, 45, 71 (July, Aug. Sept. 1900). 21

"**Watford's [Eng.]**, Worries and Wants." Mun. J. & London 8:1163 (Oct. 27, 1899). 22

Weissenfels, Ger. Housing. "Aus zwei deutschen Kleinstädten, ein Beitrag zur Arbeiterwohnungsfrage." v. Mangold, Carl. Jena, Fisher, 1894. 23

"**Wellington**: A City of the Empire." Dolman, Frederick. Idler 15:166 (March, 1899). 24

West Ham, Eng. (See under **London.**)

Wharves and Docks. (See **Harbor Facilities.**)

Wheeling, W. Va., History, description and statistics of in 1880. Census. See 1-7. 25

White Chapel. (See under **London.**)

"**White Haven [Eng.]**, Some Public Works at." Brodie, J. S. San. Rec. 23:566 (June 30, 1899). 26

"**White Plains, N. Y.**, Water Works, The." Engng. Rec. 42:176 (Aug. 25, 1900). 27

"**Willesden [Eng.]**, Light and Traction." Mun. J. 9:584 (July 27, 1900). 28

"**Williamsburg**, History of." Tyler, Lyon G. See 1-4c. 29

"**Williamsport**, Water Supply at." Fire & W. 22:387 (Oct. 23, 1897). 30

Wilmington, Del.

"Garbage, Cremation of: The Methods used in Wilmington, Del." Phillips, Barnet. Hrprs. Wkly. 38:913 (1894). 31

"Gas Works of Wilmington, Del." Am. Gas Light J. 68:133 (Jan. 24, 1898). 32

"History of Wilmington, Del." Vallandigham, E. N. See 1-4b. 33

"Parks of Wilmington, Del." Leisen, Theodore A. Mun. Engng. 16:366 (June, 1898). 34

"Sewer, Wilmington's Intercepting." Hatton, T. Chalkley. City Govt. 1:90 (1896). 35

"Water Purification at Wilmington, Del." Eng. News 40:146 (Sept. 8, 1898). 36

Wilmington, N. C.

"History of Wilmington, N. C." Cheshire, J. B. See 1-4c. 37

History, description and statistics of Wilmington, N. C., in 1880. Census. See 1-7. 38

"**Wimbledon, Eng.**, the Sewerage of." Fuertes, James H. Engng. Rec. 37:232 (Feb. 12, 1898). 39

Winchester, Eng.

"The City of Winchester." Telford, John. Wesleyan Methodist Magazine Sept. 1899. 40

History. "Winchester." Kitchin, G. W. London, Longmans, 1890. Historic Towns Series. 8vo. 3s. 6d. 41

Wires, Underground vs. Overhead. (See **Conduits.**)

"**Wisby**: An Ancient Hanseatic Town." Hyams, Walter. Outlook 57:321 (Oct. 2, 1897). 42

Wisconsin.

"Charter and its Relation to Wisconsin Cities, The Model." Butler, John A. Proc. of the League of Wisconsin Municipalities, Bulletin No. 3, p. 10, June 26-27, 1899. 43

Elections. "Wisconsin Primary System." Monroe, Charles E. N. Y. Conf. on Practical Reform of Primary Elections, p. 133. Chicago, Hollister, 1898. 8vo, 150 pp. Paper. 44

"League of Wisconsin Municipalities." Sparling, Samuel E. Ann. Am. Acad. Pol. Sci. 14:272 (Sept. 1899). 45

"Legislation for Wisconsin Cities, The Need of." Douglas, A. S. Municipality p. 8 Oct. 1900. 46

"Local Government in Wisconsin." Spencer, David E. J. H. Univ. Studies VIII:2 (1890). 47

"Streets in Wisconsin Cities, Construction and Maintenance of." Buckley, Ernest R. Municipality, p. 1, April, 1900. 48

"Uniform Accounting for Wisconsin Cities." Sparling, Samuel E. Proc. of the League of Wisconsin Municipalities, Bulletin No. 3, p. 41, June 26-27, 1899. 49

——. "The Relation of the Simplified State Accounting System to Wisconsin Municipalities." Gilman, Stephen W. Public Policy 2:395 (June 23, 1900), Municipality Vol. I, No. 5, p. 19 (Dec. 1900). 50

Wolverhampton, Eng.

"Sewage Disposal at Wolverhampton, Eng." San. Rec. 23:417, 436, 458 (May 12, 19, 26, 1899). 51

——. "Wolverhampton Sewage Works." Berrington, R. E. W. Proc. Inst. Civ. Eng. (London) 110:289 (1892). 52

Women and their Relations to the City. (See also **Working Women and Settlements.**)

See also Boston, Chicago, Denver, Indianapolis, London, New Orleans, New York, Philadelphia, United Kingdom, Washington.

Female Suffrage. "L'Electorat municipal et provincial des femmes." Alix, Gabriel. La Reforme Social Nov. 1, 1896. 53

"Municipal Government from a Woman's Standpoint." Runkle, [Mrs.] C. A. p. 500 Proc. Second Natl. Conf. for Good City Govt., 1895, see 6-18b. 54

——. "Women's Work on City Problems." (A symposium. For articles see the individual cities.) Mun. Aff. 2:439 (Sept. 1898). 55

——. "Woman's Work in Municipal Housekeeping." Seward, Mary C. Our Country 5:180 (May, 1897). 56

"Reform, Relation of Women to." Welsh, Herbert. Printed by the Civic Club of Philadelphia, 1894. Pamphlet, 15 pp. 57

——. "Relation of Women to Municipal Reform." Mumford, Mary E. p. 135 Proc. Natl. Conf. for Good City Govt, 1894, see 6-18a. Also published by the Civic Club, Philadelphia, 10 pp. 58

Sanitation. "What Women have done for the Public Health." Thomson, Edith Parker. Forum 24:46 (Sept. 1897). 59

"Women's Part in Political Sins." Burleigh, Florence A. Am. M. Civics Dec. 1896. 60

"Women in Municipal Affairs." Nation 51:337 (1890). 61

Woonsocket, R. I.

"Sewage Disposal at Woonsocket, R. I." Engng. Rec. 39:250 (Feb. 18, 1899). 62

——. "Woonsocket, R. I., Results obtained with large Experimental Septic Sewage Tanks and Rapid Filtration at." Carpenter, George A. Engng. N. 44:435 (Dec. 20, 1900). 63

"Water Works Reservoir and Dam, Woonsocket." Cook, Byron I. J. N. E. W. W. Assoc. Sept. 1897. 64

Worcester, Mass.

"Sewage Problem of the City of Worcester, Mass., The." Sci. Am. Sup. 49:20287 (April, 7, 1900). 65

——. "Recent Changes in Sewage Disposal, Worcester, Mass." Engng. Rec. 41:242 (March 17, 1900). 66

——. "Sewage Works at Worcester, Mass." Engng. Rec. p. 258 (March 21, 1891). 67

——. "The Worcester Sludge Process." Engng. Rec. 41:370 (April 21, 1900). 68

——. "Worcester's Sewer System." Eddy, Harrison P. City Govt. 9:64 (Sept. 1900). 69

Working Women in Cities. (See also **Women and their Relation to the City.**)

"Condition of Wage Earning Women." Graffenreid, Clare de. Forum 15:68 (1893). 70

Housing of Women in Cities. (See Women under **Housing.**)

"Women Wage Earners." (Bibliography.) Campbell, Helen J. Boston, Roberts Bros., 1893. 303 pp. $1. (pp. 116 et seq. on "Women Wage Earners of Boston and New York.") 71

"Working Women in Large Cities." Fourth Annual Report of the Commissioner of Labor. Washington, Government Printing Office, 1889. 631 pp. 72

"**Wyoming.** Uniform Municipal Accounting in." Engng. N. 44:94 (Aug. 9, 1900). 73

Yonkers, N. Y.

"Bath, The Yonkers' Public." Engng. Rec. 37:567 (May 28, 1898). 74

"Electrolysis at Yonkers, N. Y." Knudson, A. A. Engng. Rec. 40:110 (July 1; 1899); Mun. Engng. 17:102 (Aug. 1899). 75

"Housing of the Working People in Yonkers." Bogart, Ernest Ludlow. Am. Econ. Assoc. 3:273 (Oct. 1898). 76

York, [Eng.] (History.) Raine, James. London, Longmans, 1893. Historic Towns Series. 8vo. 3s. 6d. 77

York, Pa.

"Water Works of York, Pa." Birkenbine, John. Engng. Rec. 39:375 (March 25, 1899). 78

——. "Reconstruction of the York, Pa., Water Supply." Birkenbine, John. Pro. Eng. C. Feb. 1899. 79

Zürich.

Building Laws. "Zürcherisches Baurecht." Schneider, A. Zürich, David Burkli, 1865. 105 pp. 80

Burials. "Leichenverbrennung u. d. Crematorium in Zürich." (Especially question of cost and results.) Würmli, G. Zürich, Buchh. d. Schweiz. Grüthvereins, 1895. 16 pp. 30 pf. 81

——. "Zürcher Krematorium." Geiser, A. Schweiz. Bauz. Bd. XIV, Nr. 7 und 8 (1889); Heim, Albert. Schweiz. Blätter f. Gesund. Nr. 4 und 5 (1889). 82

Garbage Disposal. See 56-40b. 83

Gas Works. "Das neue Gaswerk der Stadt Zürich in Schlieren." Schweiz. Baux. Oct. 28, 1899. 84

History. "Politische Wandlungen der Stadt Zürich." Treichler, J. J. Berlin, Carl Havel, 1885. 36 pp. 85

Housing. "Les Habitations Ouvrières dans le Canton de Zürich." Artibal, J. R. Municipale 3:1983 (March 17, 1900). 86

Municipal Government of Zurich. Demombynes, Vol. II, pp. 453-467. See 2-11. 87

Sewage Disposal. See 56-40b. 88

"Street Railway Engineering in Europe: The Street Railway System of Zurich, Switzerland." Zahn, G. H. B. Elec. Eng. 24:320 (Oct. 7, 1897). 89

Unemployment. "Ergebnisse der Arbeitslosenstatistik in Zürich." Lang, Otto. Sozialpol. Centralblatt June 26, 1893. 90

——. "Die Arbeitslosigkeit in Zürich in den Wintern von 1892-93 und 1893-94." Merk, Aug. Berne, 1894. 91

Water Supply. "Die Wasserversorgung von Zürich, ihre zusammenhang mit der typhus Epidemie d. J. 1884." Bericht der Wasserkommission. Zürich, Scherzerisches Antiquariat, 1885. 7 m. 50 pf. 92

——. "Water Filtration, Zurich, Switzerland." Fuertes, James H. Engng. Rec. 39:472 (April, 22, 1899). 93

AUTHOR LIST.

[Explanatory Note.—The number preceding each dash refers to the page, the number or numbers following refer to the titles on that page, which are denoted by the marginal numbers on the right of each page. Thus the reference written by A. C. Abbott is on page 240, title 57. In case there are two or more references upon one page, the page number is not repeated, but the title numbers are placed in order and separated by commas.]

A

Abbott, A. C. 240-57.
Abbott, Arthur V. 67-18.
Abbott, Samuel W. 241-73; 294-41.
Abel, L. 213-85; 216-63.
Abele, ——. 103-62.
Abella, D. F. 255-14, 25.
About, E. 210-13.
Ackworth, William M. 129-71; 133-59; 159-76; 234-3.
Acland, A. H. D. 285-35.
Acland, C. T. D. 274-42.
Acollas, René. 70-68a; 79-83.
Acton, William. 140-49.
Adams, ——. 227-51.
Adams, Alton D. 27-15; 117-59; 119-13; 120-51; 124-75; 125-81, 159-80; 165-11, 16; 166-50; 265-17; 266-42.
Adams, Alva. 5-93.
Adams, Charles Francis. 7-83; 29-61; 151-87; 221-39, 40; 233-97, 98.
Adams, Ernst A. R. 276-9.
Adams, Francis. 235-33; 294-51.
Adams, Henry C. 40-24; 44-29; 72-5; 158-45; 247-58; 296-1.
Adams, Herbert B. 15-25; 16-34; 116-46; 141-81; 171-57, 60; 248-67; 292-85.
Adams, J. C. 217-91.
Adams, S. A. 126-13.
Adams, S. H. 211-37; 249-34.
Addams, Jane. 26-77; 47-97; 48-13; 49-19; 50-38; 64-55; 247-47, 54, 56.
Addle, Peter. 105-27; 282-49.
Adickes, ——. 103-58.
Adickes, F. 88-59.
Adler, Dankmar. 36-33, 34.
Adler, Georg. 272-4; 273-20.
Adler, J. 272-100.
Ady, Clarence E. 143-20.
Affeld, A. O. 76-100.
Agar, John G. 161-5.
Agnew, S. H. 193-72; 218-12.
Aiken, William Martin. 12-35.
Albert, H. 62-13.
Albrecht, H. 89-81.
Albu, J. 22-77.
Alcorn, W. B. 223-45.
Alden, Percy. 8-57; 141-76; 247-53.
Aldrich, Allen. 232-83.
Aldridge, H. R. 100-71.
Alexander, H. C. 216-49.
Alexander, Hugh. 307-62.
Alessio, Giulio. 110-35.
Alford, Robert C. 99-48.
Alglave, E. 118-97.
Alix, Gabriel. 311-53.
Allan, Charles E. 281-37, 39.
Allen, Elizabeth A. 245-12.
Allen, Horace N. 246-36.
Allen, Kenneth. 16-36; 249-93; 250-6.
Allen, W. F. 151-83; 290-51.
Allen, Walter S. 151-94; 157-22, 24; 165-5; 168-79; 209-98.
Alling, Joseph T. 235-28.
Allinson, E. P. 223-54, 64; 224-68.
Allpress, R. H. 140-63.
Allsop, Robert Owen. 17-79.
Alongi, G. 110-43.
Alphand, A. 210-8.
Altgeld, John P. 294-34.
Alvord, John W. 53-100; 249-94; 296-41.
American, Sadie. 215-36, 45; 246-30.
Ames, George N. 269-26.
Ames, Herbert Brown. 156-2.
Ames, L. T. 106-40.
Amore, Nic. 170-26.
Amoretti, P. 111-48.
Amos, Sheldon. 146-86; 231-50.
Anderson, G. H. 9-86.
Anderson, Rowand. 11-26.
André, E. 213-66.
Andreas, A. T. 47-88, 91.
Andrews, Avery D. 181-77.
Andrews, Charles M. 55-33.
Andrews, E. Benjamin. 48-15.

Andrews, Elmer L. 252-58.
Andrews, George H. 174-20.
Andrews, H. A. 83-63a.
Andrews, Horace. 257-71; 266-49.
Andrews, William S. 193-77; 194-78.
Angel, R. J. 300-1.
Angell, Lewis. 105-12; 241-86.
Anschütz, Gerhardt. 85-4.
Anson, W. R. 141-77.
Ansted, D. T. 149-53.
Appleton, Joseph. 266-45.
Arago, Ch. 212-61.
Archer, W. 139-30.
Archer, W. H. 14-98; 203-40.
Archibald, E. M. 94-72.
Ardagh, Judge. 170-24.
Arey, C. O. 308-79.
Argyle, Duke of. 74-63.
Arkell, George E. 106-49.
Armand, Léopold. 244-65.
Armengaud, ——. 118-100.
Arminjon, Pierre. 275-58.
Armstrong, Albert H. 197-30.
Armstrong, C. M. 167-54.
Armstrong, F. C. 16-48; 108-83; 117-66; 148-27.
Armstrong, Henry. 303-57.
Arnaudon, G. G. 261-46.
Arnecke, ——. 61-100.
Arnold, F. 141-77, 81.
Arnold, Matthew. 285-34.
Arnold-Forster, H. O. 131-22; 261-36.
Artibal, J. 20-42; 21-43; 22-89; 86-26; 103-72; 144-41; 182-8; 229-88; 280-2; 312-86.
Artigues, George. 206-3.
Artom, Ern. 279-87.
Aschrott, P. F. 41-34a; 89-90; 277-38; 282-43.
Ash, Mark. 174-18.
Ashbridge, W. T. 146-88.
Ashby, Newton B. 62-11.
Ashley, Percy W. L. 129-90.
Ashley, W. J. 51-54; 280-8.
Ashman, Henri. 36-53.
Atkinson, Edward. 26-87; 35-22; 75-81, 95.
Atlee, Walter. 225-93.
Atterbury, Anson P. 193-57.
Atwood, Wm. G. 50-36.
Aucoc, Leon. 77-18.
Austen, P. H. 306-39.
Avebury, Lord. 164-80.
Avery, Elroy M. 53-4; 162-49.
Avery, Myrtilla. 244-77.
Avery, T. 24-34.
Axon, W. E. A. 4-56.
Axtell, S. P. 306-40.
Aydon, J. W. 75-84.
Aylward, John A. 290-59.
Ayres, H. W. 308-63.
Ayres, P. W. 44-23; 204-68.

B

Babcock, Kendric C. 161-19.
Babcock, Stephen E. 308-63.
Bache, René. 105-19.
Bachi, Riccardo. 110-40; 113-89; 276-89.
Backnoffner, R. 86-16.
Bacon, L. W. 181-73.
Baddeley, J. J. 134-22.
Baer, ——. 274-38.
Baer, John Willis. 50-42.
Baetjer, Edwin G. 15-26.
Bagwell, Richard. 274-54.
Bahrt, A. F. 244-63.
Bailey, Cyril. 141-81.
Bailey, George I. 75-91.
Bailey, Henry Turner. 244-76.
Bailey, T. Ridley. 285-25.
Bain, Geo. G. 301-26.
Bain, H. Foster. 293-27.
Baker, B. B. 145-51.
Baker, Charles Whiting. 159-84.
Baker, E. Burgoyne. 183-20.
Baker, Henry B. 154-57.
Baker, J. Allen. 143-21; 268-96; 270-29.
Baker, M. N. 5-95; 49-22; 71-86, 87; 165-99; 169-14; 198-53; 251-36; 295-59, 70; 297-26; 306-28.
Baker, R. S. 48-11.
Baker, Sir B. 142-92.
Balch, Emily Greene. 78-55, 56.
Balch, Louis. 294-43.
Balch, William R. 227-42.
Baldwin, A. S. 161-19; 240-55.
Baldwin, Elbert F. 221-12.
Baldwin, F. Spencer. 6-10.
Baldwin, Henry De Forest. 7-29; 175-37; 181-84.
Baldwin, W. C. 153-39.
Ball, Robt. S. 35-24.
Ballard, A. 290-10.
Ballod, Paul. 228-80.
Balmer-Rinck, J. 102-41.
Bamberg, C. 271-71.
Bancroft, C. F. 264-11.
Bancroft, F. J. 288-88.
Bank, A. B. 224-73.
Banks, E. L. 181-67.
Banks, Louis A. 100-61.
Banks, W. 270-30.
Barber, H. H. 116-38.
Barbour, Frank A. 150-70; 251-29.
Barbour, George M. 243-56.
Barboux, Henri. 76-5.
Barclay, Thomas. 75-48, 49.
Bardies, Ch. 207-20.
Barker, F. E. 165-99.
Barnard, Job. 158-44.
Barnes, C. E. 89-94.
Barnes, James. 183-34.
Barnes, L. C. 163-77.
Barnes, T. Howard. 152-29.
Barnes, William H. 261-56.
Barnet, A. A. 273-11.
Barnett, Canon. 101-7; 133-97.
Barnett, S. A. 141-81; 247-52; 248-70, 72; 273-34.
Barrally, T. W. 203-48.
Barré, L. A. 232-85.
Barrero, E. M. 143-24.
Barrett, John A. 195-98.
Barrow, E. G. 95-92; 251-32.
Barrows, John H. 9-65a; 170-23.
Barrows, S. J. 294-35.
Barry, John Wolfe. 143-8, 18; 144-29; 145-51.
Barry, Richard. 186-13; 194-95.
Barthélemy, A. 78-42.
Bartley, George C. T. 133-94; 273-39.
Barwise, Sidney. 249-80; 251-35.
Bashore, Harvey B. 243-39.

Bassell, Burr. 147-92.
Bassett, C. Ph. 62-19; 250-23.
Bastable, C. F. 279-71, 72.
Bates, Katherine Lee. 39-4a.
Batten, J. H. 8-49.
Batterahall, W. W. 10-1.
Baumeister, R. 35-5; 249-89; 257-53, 61; 258-87.
Baxter, James Phinney. 9-64.
Baxter, R. Dudley. 279-90.
Baxter, Sylvester. 20-25; 26-79, 88; 27-13; 28-38, 40, 41; 29-56, 57, 59; 31-4; 113-92; 117-58; 151-89; 161-94; 170-20; 215-46; 216-52; 293-25.
Bayard, E. 211-34.
Bayles, G. J. 152-22.
Bayles, James C. 187-24; 309-3.
Bazalgette, C. M. 252-58.
Beach, Charles F., Jr. 5-99.
Beachcroft, R. Melville. 100-69; 105-33; 129-86.
Beal, B. L. 31-7.
Bean, L. S. 51-50.
Bean, W. Worth. 164-93.
Beardsley, Joseph. 309-100.
Beattie, H. S. 267-76.
Beatty, W. A. 239-36.
Beatty, William T. 220-79.
Beaumont, Irwin. 238-95.
Beaune, Henri. 147-9.
Bechard, Ferdinand. 97-12, 13, 14.
Bechmann, G. 211-28, 39.
Beck, Louis J. 182-14.
Becker, G. 112-77.
Beckett, J. 72-13.
Beeler, John A. 269-26.
Beer, E. 90-18.
Beggs, John I. 263-81.
Behm, E. 229-6.
Behrend, G. 118-86.
Beilby, George. 122-7.
Beitel, Calvin G. 222-25.
Beitzell, A. J. 246-19.
Belden, E. Porter. 185-83.
Bell, A. C. 173-100.
Bell, A. N. 173-2; 243-27.
Bell, Edward Hamilton. 13-64.
Bell, J. J. 220-82.
Bell, James. 91-13.
Bell, Louis. 266-35; 296-86.
Bellamy, Blanche Wilder. 134-62.
Bellamy, Francis. 4-60.
Bellamy, R. C. 122-13.
Bellangé, Charles. 77-32.
Bellet, D. 144-42.
Bellot, H. H. L. 39-99; 74-69.
Bellour, Maurice. 260-20.
Belmont, P. 73-22; 74-56.
Bemis, Alton A. 227-38.
Bemis, Charles H. 31-19
Bemis, Edward W. 7-32; 47-78; 48-14; 60-82; 73-32; 153-49; 158-43, 58; 159-64; 160-86, 93; 161-16; 162-38; 164-93; 165-21, 99; 166-34, 42, 48, 51; 168-82; 224-80; 289-24; 293-17.
Bender, Herm. 235-41.
Benedetti, F. 111-49
Bengough, W. 153-16.
Benham, Charles E. 54-18.
Benjamin, Anna N. 238-7.
Benjamin, S. 309-91.
Bennett, Alfred R. 167-58.
Bennett, S. H. 85-95.
Benzenberg, George H. 155-78.
Beraneck, Hermann. 211-32; 298-49.
Beret, Auguste. 103-61.
Bergh, Robert S. S. 93-54.
Berghoff, Ising 271-65.
Bernard, François. 81-29.
Bernard, W. C. 281-38.
Bernardi, Spiritc. 76-8.
Bernheim, A. C. 176-67; 180-61; 181-76; 189-72.
Bernstein, A. 118-88.
Bernstein, Eduard, 282-44.
Berrington, R. E. W. 308-86; 309-11; 311-52.
Berry, Louis F. 38-94a.
Berryman, J. R. 5-2; 72-4.
Berthélemy, H. 73-25.
Berthold, G. 21-59.
Bertoglio, L. 73-44.
Bertram, Heinr. 22-79.
Bertrand, Louis. 19-9.
Besant, Walter. 44-31a; 131-44; 133-82, 95; 134-27; 135-32; 139-43; 142-95; 143-14; 228-83; 246-15.
Bettocchi, C. 24-22.
Betts, Lillian W. 107-58, 69; 192-56; 215-36.
Beveridge, A. T. Gordon. 101-1.
Beynon-Harris, George. 167-69.
Bibo, Nathan. 240-49.
Biddaer, ——. 19-3.
Biebel, H. M. 119-19.
Bienenfeld, Bernard. 219-48.
Bigelow, A. G. 37-56.
Bigelow, James F. 151-1.
Biggar, C. R. W. 205-83.
Biggs, Herman M. 192-36.
Bignami, Enrico 111-50.
Billings, John S. 15-32; 16-38; 29-72; 30-88; 40-18, 22, 25; 43-89; 188-54; 192-36, 37; 193-71; 224-87; 225-98; 240-61, 62; 250-8; 252-58; 294-40; 295-66, 69; 302-31, 35; 304-74.
Billings, R. C. 229-10.
Billows, F. H. 146-83.
Binney, Charles Chauncey. 65-71.
Binnie, Alexander R. 133-99; 212-64.
Bippen, Wilh. 32-38.
Birch, J. 99-60.
Birch, Walter de Gray. 135-34.
Bird, Albert A. 57-58; 64-43; 222-22, 41; 223-60; 224-86, 87; 225-1, 3.
Bird, George Frederick. 270-37.
Birkenbine, John. 312-78, 79.
Birkinbine, John. 224-67.
Birkmire, William H. 36-29.
Birtwell, Charles W. 116-41.
Bishop, Edwin F. 84-76.
Bishop, H. Collins. 130-34.
Bishop, J. B. 26-67, 74; 64-49, 57, 60; 65-74, 68a; 66-4; 174-21; 194-85.
Bisland, Elizabeth. 132-57; 139-43; 185-63.
Bitter, Karl. 13-68.
Bittinger, John L. 39-1.
Bivort, J. B. 18-97.
Black, Charles C. 172-74.
Black, G. Ashton. 182-98.
Black, H. C. 227-45; 242-9.
Black, Samuel L. 3-44.
Black, W. M. 264-100.
Black, William Nelson. 3-41; 183-28, 29, 32.
Blackall, C. H. 35-16; 100-92.

Blackford, Francis W. 213-19, 26; 235-47.
Blackmar, Frank W. 45-47; 239-20.
Blackwell, Robert W. 295-48.
Blades, F. A. 70-57.
Blair, D. E. 233-94.
Blair, James L. 181-74.
Blair, W. Nisbet. 141-98; 142-3.
Blake, H. B. 70-75.
Blake, Henry T. 172-70.
Blake, Lucien I. 67-20, 26; 112-66.
Blanc, Charles. 76-56; 79-82.
Blandin, E. J. 53-6; 204-63, 66.
Blas, D. Andres. 255-16.
Blas y Melendo, Andres. 255-19, 24.
Blaschko, ——. 21-73.
Blashfield, Edwin Howland. 13-64, 70.
Blashill, Thomas. 86-19; 105-34; 135-50; 281-42.
Blatch, Harriet Stanton. 69-54.
Bleicher, H. 82-55.
Bliss, W. D. P. 1-3.
Block, Maurice. 72-21; 77-20, 24, 33; 90-15; 206-99, 1; 207-10.
Blodget, C. W. 122-15.
Blomfield, Reginald. 213-78.
Blondel, Georges. 89-92.
Blood, John Balch. 270-31.
Blunden, G. H. 279-78, 96, 92.
Blyth, A. Winter. 241-95; 242-18; 252-58; 235-24.
Boardman, Albert B. 197-31.
Boase, C. W. 206-92.
Bocock, J. P. 76-12.
Bocock, Kempner. 107-64.
Bogart, Ernest Ludlow. 271-53; 312-76.
Bogart, John. 197-38.
Böhmert, Victor. 45-38; 61-4; 86-28; 259-10; 271-57.
Bolleau, W. E. 55-21.
Bokelberg, ——. 96-94.
Bokowitz, Franz. 300-93, 96.
Boller, Alfred P. 177-36.
Bolles, D. H. 217-93.
Bollie, J. 19-5.
Bolling, Charles E. 234-19; 305-17.
Bolsius, P. 98-30.
Bolton, C. E. 53-3; 54-13a.
Bolton F. 146-72.
Bompard, Raoul. 207-29.
Bompas, H. M. 100-91.
Bonaparte, Charles J. 15-9, 11; 44-35.
Bond, Edward A. 218-23.
Bond, Walter. 164-80.
Bondeman, Dallas. 111-63.
Böniches, F. 102-37.
Bonneau, Alex. 37-62.
Bonner, Hugh. 75-86; 132-3.
Bonney, C. Carroll. 290-40.
Bonney, Charles L. 296-98.
Bonomi, Ivanoe. 163-69.
Bonsal, Stephen. 15-13; 261-54.
Bonsfield, W. R. 273-34.
Boobbyer, Philip. 83-68.
Boos, Heinrich. 88-73.
Boose, J. R. 282-56.
Boot, Horace L. P. 120-46; 125-78, 82; 282-62.
Booth, Ballington. 179-39; 186-10.
Booth, Charles. 42-72; 106-49; 130-8, 9; 132-60; 136-65; 137-100; 141-77, 81; 143-11.
Booth, Henry J. 268-95.
Booth, Mary L 135-68.
Booth, Maud B. 105-23; 179-44, 196-10.
Booth, W. H. 278-64.
Booth, William. 51-51.
Booth-Tucker, F. de Latour. 44-23.
Borden, Philip D. 151-1.
Borlas, Edmond. 121-64.
Borland, E. B. 264-4.
Bornhak, Conrad. 86-15; 88-68.
Bosanquet, Bernard. 40-33; 44-22; 51-52, 56; 105-9.
Bosanquet, Mrs. Bernard. 45-45.
Bosanquet, H. 44-22; 107-20.
Bosenberger, J. L. 268-86.
Botsford, Charles Hull. 123-34.
Bouët, H. J. 163-65.
Boulanger, E. 80-11.
Boulard, J. 113-97.
Boulden, Jane Long. 12-56.
Boulnois, H. Percy. 68-59; 100-67; 101-97; 102-27; 241-74; 285-26.
Boulter, Stanley. 231-33.
Boulton, H. E. 100-86; 136-52.
Bourcart, G. 69-51; 81-32.
Bourdeau, J. 81-40; 163-65.
Bourgeois, Léon. 81-34.
Bourinot, J. G. 39-99; 205-84.
Bourke, John Walton. 160-93; 164-83; 256-32.
Bourne, H. C. 132-62; 273-33.
Bournon, Fernand. 206-100.
Bouscaren, G. 309-15.
Boussard, J. 213-68.
Boutmy, Emile. 275-61.
Bouton, George T. 74-59, 70; 249-33.
Bowker, R. R. 24-15; 53-93; 100-85; 165-15.
Bowles, Samuel. 8-60.
Bowmaker, Edward. 100-64; 232-42.
Boyd, Carl. 291-81.
Boyd, John G. 157-27.
Boyd, Peter. 224-78.
Boyden, H. P. 70-71.
Boyeson, I. K. 8-48.
Boykin, James C. 244-80.
Boyle, James. 127-29; 235-49.
Boyle, John W. 168-88; 268-100.
Boynton, Edward C. 266-44.
Brabazon, Lord. 18-85; 213-80.
Brace, Charles Loring. 179-29; 191-16.
Brackenbury, C. E. 120-58; 121-74; 122-16; 124-59.
Brackenridge, James. 122-37.
Brackett, Dexter. 303-66; 305-14.
Brackett, Jeffrey R. 44-14.
Brackett, Mary Morrell. 190-93.
Bradford, Amory H. 259-3.
Bradford, Gamaliel. 3-23; 3-42; 26-96; 152-24; 289-8.
Bradley, J. P. 254-7.
Bradley, J. W. 285-21.
Bradshaw, M. 107-60.
Brady, C. E. 33-53.
Brainard, Erastus. 246-34.
Brainard, Owen. 36-23.
Bramhall, John T. 46-67; 43-5, 8; 49-37.
Brand, H. R. 135-42.
Brandau, L. 9-79.
Branson, Walter J. 66-99; 201-100; 222-63; 225-3.
Braun, Adolf. 21-55; 273-10.
Braun, Gustav. 15-7.

Braungart, R. 156-17.
Bray, F. C. 126-6.
Brearley, John Henry, 121-65, 66.
Breed, A. H. 38-82.
Breen, Matthew P. 201-18.
Brelay, Ernest. 103-66; 212-59.
Bremner, C. S. 131-43.
Brennan, John P. 204-70.
Breslauer, Bernhard. 20-35.
Brett, W. H. 54-9.
Bridgman, Henry H. 143-7.
Bridgman, R. L. 7-32.
Brierley, J. H. 101-8.
Brigden, W. W. 18-89.
Briggs, Josiah A. 220-89.
Brinley, Charles A. 64-45; 223-43.
Brisac, ——. 120-59.
Briscoe, M. S. 16-45.
Bristed, C. A. 209-79.
Bristowe, Frederick. 304-87.
Britton, John A. 124-50; 160-93; 164-84; 165-23.
Broadhurst, W. H. 219-49.
Broatch, W. J. 205-80.
Brocklehurst, F. 149-59, 62.
Brodhead, John Romeyn. 201-15.
Brodhurst, S. 276-7.
Brodie, J. S. 310-26.
Brodlique, Eva H. 43-18.
Brodrick, George C. 275-74, 75.
Brookman, F. W. 84-80.
Brooks, F. M. 66-100.
Brooks, J. G. 42-80; 89-89; 152-11; 271-55; 273-28.
Brooks, John P. 263-91.
Brooks, Robert C. 2-21; 20-42; 21-63; 23-9; 27-6; 37-32, 37, 38.
Brophy, William. 27-14; 75-83; 119-20; 265-19.
Bross, William. 47-89.
Brown, C. O. 35-21.
Brown, C. S. Vesey. 120-47.
Brown, Chas. Carroll. 63-23, 44; 74-71, 74; 103-94; 156-36; 163-51; 219-60; 220-67; 253-80; 295-63; 309-99.
Brown, D. Walter. 292-3.
Brown, E. C. 292-99.
Brown, E. S. 183-50.
Brown, Edward Osgood. 74-51.
Brown, Frederick J. 16-39, 40.
Brown, G. E. 118-81.
Brown, G. P. 49-21, 23.
Brown, George Morgan. 7-32.
Brown, Glenn. 12-59.
Brown, Goodwin. 17-73; 18-86; 177-83.
Brown, H. 204-54.
Brown, Harold P. 58-66; 67-22.
Brown, I. B. 222-26.
Brown, L. W. 173-4.
Brown, Paul G. 47-74a.
Brown, S. Herbert. 33-50.
Brown, Thomas W. 60-82.
Brown, Wm. Adams. 193-63.
Browne, Frank Balfour. 293-73.
Browne, Junius Henri. 173-30; 272-92.
Browne, Thos. N. 147-11.
Browne, William W. 73-23.
Brownell, E. E. 67-16.
Bruce, W. W. 66-23; 104-82; 133-4.
Bruhl, Louis H. 39-16.
Brundage, Ben L. 220-86.
Brünning, ——. 205-87.
Bruns, F. 147-7.
Brusa, E. 109-7.
Brush, E. H. 34-92a.
Bryan, Clark W. 256-34.
Bryan, George J. 73-41.
Bryan, W. B. 301-22.
Bryan, Wm. H. 254-97.
Bryant, Henry F. 29-62; 55-29.
Bryce, P. H. 240-58.
Bryce, James. 64-50; 181-73; 217-2; 287-60; 289-4; 294-33.
Bucher, Karl. 16-52; 82-52; 103-60.
Buchtel, Henry A. 50-44.
Buck, Albert H. 242-24.
Buckley, Ernest R. 311-48.
Buckley, W. J. 118-94.
Budd, Henry. 217-82.
Buechel, Carl. 256-44.
Buel, C. C. 174-21.
Bugbee, J. M. 26-81; 75-88; 171-58.
Bugnottet, G. 140-55.
Bulla, John N. 38-82a.
Bullier, L. M. 117-70.
Bullit, John C. 223-54.
Buls, Ch. 12-52.
Bunce, J. Thackeray. 25-36; 276-85.
Buomberger, Ferdinand. 82-59.
Burbank, Emily M. 19-21.
Burdette, Everett W. 166-31; 163-90.
Burdette, Henry. 42-84; 43-88.
Burgess, C. F. 67-15.
Burgess, H. T. 14-100.
Burhans, J. A. 71-92.
Burke, M. D. 269-26.
Burke, Thomas. 127-40.
Burke, Ulick Ralph. 253-94.
Burleigh, Florence A. 311-60.
Burn, Robert Scott. 253-88.
Burnap, Charles E. 151-99.
Burnell, G. R. 206-2.
Burnet, Charles D 39-13.
Burnham, George, Jr. 223-54.
Burns, Clinton S. 253-78.
Burns, John. 129-74; 273-33, 34.
Burrage, Severance. 244-76.
Burrows, Montagu. 280-11.
Burt, F. P. 41-36.
Burt, Silas W. 200-93.
Burton, C. M. 53-8.
Buschmann, Nikolaus. 273-23.
Buse, Julien. 103-77.
Buseman, M. 20-23c.
Busey, S. C. 302-45.
Bush-Brown, H. K. 12-36; 176-79.
Bushée, Frederick A. 23-21; 29-66.
Busk, Alice E. 283-94.
Butler, George B. 174-23.
Butler, John A. 57-56; 155-81; 283-99; 311-43.
Butler, Nicholas Murray. 192-50.
Butler, William Allen. 185-86.
Butterfield, W. J. Atkinson. 121-73.
Butterworth, Irvin. 251-33.
Butts, Edward. 269-24.
Butts, I. 6-6.
Buxton, Noel. 126-16; 277-94.
Buxton, S. C. 276-56.
Buzelle, George B. 44-19.
Byles, W. P. 289-12.
Byrne, Austin T. 218-17.

Byrnes, T. 186-13; 226-30.

C

Cabeen. Mrs. F. Von A. 83-67.
Cacheux, Emile. 75-54; 88-78; 102-39, 45; 103-56; 244-67.
Cadet, A. 37-60.
Cadman, S. Parkes. 187-21.
Cadoux, Gaston. 208-52.
Cadwallader, Starr. 54-10.
Cady, Thomas. 190-95.
Caffin, Charles H. 13-64; 176-78.
Cahill, B. J. S. 239-21.
Cahoon, James Blake. 158-48; 157-26; 160-95; 161-16; 165-9; 266-41; 291-77; 293-20.
Calamandrei, Rod. 109-14.
Calderwood, John F. 263-78; 270-33.
Caldwell, Joshua W. 112-76.
Caldwell, W. 101-99.
Calkins, G. N. 285-28.
Callet, Albert. 79-87.
Cameron, Charles A. 62-7.
Cameron, G. 37-55.
Cameron, W. L. 305-10.
Cammann, Henry J. 178-23.
Camp, Hugh N 179-23.
Campagnole, Edouard. 221-7.
Campbell, A. F. 44-30; 226-28.
Campbell, A. H. 84-82, 83; 280-4.
Campbell, A. W. 220-76; 242-7; 250-13.
Campbell, C. E. 109-97.
Campbell, Helen. 41-39; 105-32; 248-65; 312-71.
Campbell, M. James. 141-80.
Canby, Noble. 46-60.
Canfield, M. G. 158-49.
Cannan, Edwin. 163-58; 278-46; 279-77, 80.
Cannell, C. S. 252-58.
Canning, Thomas. 121-82.
Cannon, E. 229-97.
Canti, S. 235-36.
Cantlie, J. 140-54.
Capen, Samuel B. 6-17a; 29-51; 57-57.
Cappelen, F. W. 125-83, 85; 293-10, 16.
Cappelle, Ed. 117-72.
Capper, S. H. 36-36.
Carden, Edward. 61-2.
Carlier, A. 289-27.
Carlin, Eva V. 37-77.
Carnevali, Tito. 109-15.
Carõe, D. 258-93.
Carpenter, A. 260-13.
Carpenter, George A. 151-1; 311-62.
Carpenter, S. 123-23.
Carpenter, Thomas B. 83-63a.
Carr, C. E. A. 264-11.
Carr, Isaac. 72-16; 124-53.
Carr, William Wilkins. 225-3.
Carrera y Justiz, Francisco. 58-62.
Carret, James R. 152-7.
Carson, Howard. 152-4.
Carstens, C. C. 208-37; 212-60.
Carter, James. 288-79.
Carter, Luther C. 180-50.
Cary, Edward. 147-5; 194-95.
Cary, Thomas G. 239-39.
Case, L. N. 17-65; 306-22; 309-7.
Cassat, Alfred C. 204-63.
Castiglioni, L. 110-16.
Catania, C. 110-27.
Caulfield, John. 169-4; 238-2.
Caverly, C. S. 246-17.
Cawston, Arthur. 142-100.
Center, George L. 239-33.
Chabanne, J. B. 146-69; 293-12.
Chabrouillard, F. 236-52, 53.
Chadwick, Edwin. 99-52; 130-94; 274-47.
Chadwick, J. W. 37-65.
Challenger, Charles. 267-81.
Chalmers, M. D. 275-63.
Chalmers, Thomas. 50-42.
Chamberlain, Joseph. 3-31; 24-29; 27-89; 99-57; 100-31; 276-88, 91; 278-47; 289-29.
Chamberlain, W. G. S. 173-13.
Chambers, W. 41-35.
Chamen, W. A. 67-23.
Champagnac, Emile. 80-93.
Champernowne, Henry. 26-69.
Champlin, John W. 93-58.
Chance, George. 217-9.
Chance, G. Whitefield. 264-13.
Chance, W. 277-31.
Chancellor, C. W. 96-6; 211-37; 307-49.
Chandler, C. F. 292-98.
Chant, L. O. 42-78.
Chapin, Charles V. 304-80.
Chapin, Henry Dwight. 146-85; 192-54; 255-88.
Chapin, L. E. 39-4.
Chapin, T. F. 245-8.
Chapman, E. T. 308-49.
Chapman, John Jay. 5-94a, 94b; 217-78, 85; 290-37.
Chapman, Sydney J. 279-88.
Charles, S. A. 116-35; 304-79.
Charnay, Maurice. 206-2; 209-91; 211-41.
Chase, Charles B. 258-74.
Chase, Harvey S. 29-68.
Chase, John C. 96-5; 293-18.
Chase, Philip A. 29-61.
Chassagne, ——. 208-42.
Chater, W. A. 133-7.
Cheetham, W. 112-78.
Cheshire, J. B. 310-37.
Chessman, James. 121-73.
Chester, John S. 156-7.
Chester, W. R. 121-70.
Cheysson, E. 80-100.
Chignell, R. 133-85, 92.
Child, G. W. 104-6; 241-85.
Child, Jacob T. 108-83a.
Child, W. D. 282-63.
Childs, ——. 306-33.
Childs, Stephen. 173-14.
Chipman, Willis. 39-2.
Chisholm, George C. 235-17.
Chittenden, L. E. 196-11.
Christian, George H. 167-55.
Chubb, H. 133-12
Church, S. H. 226-16.
Church, William G. 13-65.
Cicott, Frank X. 99-49; 203-39.
Cilleuls, Alfred. 80-12.
Clancey, John J. 274-49.
Clapp, Henry Lincoln. 245-96.
Clareti, J. 206-4.
Clark, ——. 296-87.
Clark, C. C. P. 65-70, 80.
Clark, Frank Humboldt. 268-84, 87; 295-66

Clark, Helen F. 182-15.
Clark, H. W. 114-12a; 151-2; 303-78.
Clark, John S. 165-99.
Clark, Walter 158-47.
Clark, Walton. 125-88a.
Clark, William A. 29-75.
Clark, Wm. J. 262-72; 266-38; 267-68.
Clarke, Christopher. 36-30.
Clarke, Eliot C. 30-81.
Clarke, Emmons. 192-41; 257-51.
Clarke, Francis E. 51-65; 66-96.
Clarke, Thomas C. 269-6.
Clegg, James. 84-80.
Clegg, Samuel. 121-88.
Clement, ——. 100-73.
Clement, F. 49-22.
Clephane, Walter C. 301-20.
Clevalier, Emile. 78-47.
Cleveland, E. C. 216-75.
Cleveland, H. W. S. 213-91; 214-10, 99; 215-24.
Clews, Elsie. 42-78.
Clews, Henry. 197-36.
Closson, C. C. 152-11; 296-3, 7.
Clough, John Lyle. 119-6, 7, 8; 164-90.
Cloverdale, W. H. 47-82.
Clow, Fred R. 70-76; 238-98.
Clowes, Frank. 142-89, 90; 249-84, 94.
Clifford, Frederick. 285-20.
Clifford, J. 244-79.
Cline, J. W. R. 125-92.
Coates, Foster. 176-73.
Cobb, A. G. 37-55.
Cobb, Albert Winslow. 27-95.
Cochin, Denys. 208-41; 209-89.
Cochran, Charles W. 59-68.
Cochran, T. 223-65.
Cochrane, Constance. 281-33; 101-14.
Cochrane, E. 104-5.
Codman, Henry Sargent. 212-90.
Codman, J. S. 120-36.
Coen, S. 109-3.
Coffin, Freeman C. 305-96.
Cogswell, Fredrick Hull. 172-64.
Cohn, E. 104-90.
Cohn, L. 79-74.
Coit, Stanton. 247-55; 272-2.
Colam, W. N. 63-28; 171-53.
Colbert, E. 47-95.
Colburn, Zerah. 138-14.
Colby, B. H. 49-22.
Cole, T. 25-41.
Cole, William I. 27-8, 10; 29-55, 65; 30-79a.
Cole, William J. 27-96.
Cole, W. W. 269-19.
Coleman, Chapman. 20-26.
Coleman, E. 162-31.
Coler, Bird S. 50-48; 71-98; 72-10, 12; 157-32; 162-46, 50; 174-19, 27; 175-43; 179-88; 182-90, 92; 183-31; 190-87, 96; 217-7; 289-6.
Collin, Charles A. 201-4.
Collingwood, Francis. 69-44c.
Collins, C. P. 249-96.
Collins, Patrick. 127-89.
Collins, Patrick A. 166-29.
Collins, W. J. 129-90.
Collis, C. H. T. 69-44b.
Colver, Henry Clay. 246-34.
Colyar, A. S. 170-30.
Combarieu, A. 210-1.
Commons, John R. 5-86, 87, 94; 8-58; 41-55; 47-78; 51-71, 72; 60-88; 65-87; 68-44a; 73-44; 98-44; 101-95; 113-83; 151-93; 159-70; 160-87; 165-20, 99; 223-65; 230-30; 231-43, 44, 48.
Compton, Lenox. 6-8.
Comstock, John M. 290-57.
Conant, R. W. 265-22.
Conaty, G. 264-11.
Conder, F. R. 3-33; 70-62; 136-59; 146-69, 71; 243-49.
Conder, J. B. Reignier. 278-65.
Conigliani, C. A. 296-8.
Conine, Martha A. B. 59-72.
Conkling, Alfred R. 3-30; 289-7.
Conner, Edward. 78-58; 209-90; 210-2; 211-33, 39; 212-59.
Connett, A. N. 82-46; 208-40.
Connor, R. 290-48.
Conrad, ——. 2-10; 103-57, 58.
Conradi, H. 82-49.
Conyngton, Thomas. 220-85.
Cook, Byron I. 311-64.
Cook, Clarence. 189-82.
Cook, F. A. 236-55.
Cook, J. 65-73.
Cook, Theo. A. 135-37.
Cook, W. W. 159-81.
Cooke, Frederick H. 4-71.
Cooke, George Willis. 55-26.
Cooley, C. H. 229-99.
Cooley, Stoughton. 3-43; 230-34; 231-43.
Cooley, Thomas M. 5-1; 74-58; 75-75.
Coolidge, Susan. 173-11.
Cooper, Edward H. 207-32.
Cooper, Ella H. 101-100.
Cooper, Frederick E. 144-42.
Cooper, H. S. 111-61.
Cooper, Sarah B. 245-6.
Cooper, Theodore. 196-13.
Cooper, W. J. 249-79.
Copeland, Guild A. 29-52.
Copley, I. C. 123-42.
Corbett, J. 136-76.
Corfield, Wm. Henry. 145-68; 250-24; 252-58; 253-85; 305-8; 310-17.
Cornaggia, C. O. 154-65.
Cornell, Robert E. 180-56.
Cornil, Georges. 271-63.
Corradini, F. 270-43.
Corthell, Elmer L. 149-57.
Coryell, J. R. 215-35.
Cosby, Frank Clark. 237-85.
Costello, Augustine E. 182-11; 191-19.
Costelloe, B. F. C. 134-12; 145-58.
Cottrell, Henry E. P. 307-43.
Cottrell, S. B. 127-41
Courcelle, Louis. 81-25, 43.
Court, W. R. 17-60.
Coutts, Baroness Burdett. 136-58.
Covert, John C. 79-88.
Cowan, Andrew. 216-71.
Cowan, R. 92-42.
Cowell, H. C. B. 272-3.
Cowen, John K. 8-56.
Cowie, Alexander. 39-7.
Cowper, Countess. 133-98.
Cox, E. 136-75.
Cox, Homersham. 275-62.
Cox, I. J. 238-13.
Coxe, A. C. 37-55.

Craft, Mabel C. 150-73; 240-44.
Craigie, F. G. 279-69.
Craik, H. 235-36.
Cram, J. Sergeant. 183-27.
Crandall, F. H. 297-20; 309-6.
Crandon, F. P. 6-7.
Crane, Albert S. 69-50; 250-16.
Crane, Walter. 12-34.
Crane, William H. 258-78.
Cranfield, Sydney White. 100-72.
Cranford, W. V. 68-41.
Cravath, J. R. 120-49.
Cree, Nathan. 61-89.
Crehore, C. F. 7-32; 64-47.
Creighton, Mandell. 39-12.
Cremnitz, M. 247-43.
Crépy, P. 34-74.
Crespi, Alfred J. H. 25-50; 277-21; 297-30.
Cridlan, J. J. 9-77.
Crimp, William Santo. 141-88; 251-45.
Cripps, H. L. 145-59.
Crissey, Forest. 48-100.
Crocker, Francis B. 119-32.
Croes, J. James R. 198-63; 199-77; 269-8; 305-15; 309-4, 5, 12.
Crofts, W. C. 163-74.
Croker, E. F. 182-4.
Croker, Richard. 194-85.
Crompton, R. E. 119-29.
Crooks, W. 228-60.
Crosby, Albert F. 71-97.
Crosby, Ernest H. 126-19.
Crosby, Howard. 176-57; 188-63; 191-15.
Crosby, William B. 33-60.
Cross, Judson N. 155-89.
Cross, R. A. 135-42.
Crothers, T. D. 43-96.
Crowell, Foster. 196-24; 250-10.
Crowell, John F. 270-46.
Crowley, Daniel N. 196-30.
Cruikshank, Alfred B. 189-76.
Cruppi, J. 208-44.
Cruveilhier, Jean. 80-8.
Cudworth, F. G. 285-17.
Culham, J. A. 290-39.
Cullinane, J. R. 117-61.
Cullings, T. C. 141-78.
Cumming, Alice L. 22-8.
Cummings, Edward. 126-15; 242-72.
Cunningham, Granville C. 107-73.
Curley, E. A. 3-34; 152-13; 188-45.
Curry, E. H. 139-43.
Curti, Theodor. 237-77; 259-16.
Curtis, Charles E. 72-17b; 168-88.
Curtis, William Eleroy. 34-77; 38-96; 285-46; 301-4.
Curtius, Ernst. 13-34.
Cutcheon, Lewis D. 92-61.
Cutler, Mary S. 2-20.
Cutter, Charles R. 151-1.
Cutter, John D. 65-79.
Cutting, R. Fulton. 162-40; 176-62.
Cutts, E. L. 54-17.
Czepelka, A. 267-73.
Czullik, A. 214-100.

D

Dabney, W. D. 157-34.
Da Cunha, Geo. W. 106-44.
Daft, Leo. 266-49.
Daley, Agnes. 137-37.
Dalla Vatta, Da Ricardo. 74-66.
Dallenbaugh, F. S. 76-98.
Dallinger, Frederick W. 63-35; 66-89.
Dalton, William. 196-53.
Damon, George A. 125-79.
Damon, Mary B. 107-65.
Dana, M. M. G. 141-81; 240-63.
Dana, R. H. 64-40; 65-63a.
Daniel, Annie S. 166-6; 188-50.
Dareste de la Chavanne, Antoine C. 79-90.
Darley, George. 115-20.
d'Arzago, A. de C. 154-64.
Dauvert, Paul. 80-7.
d'Avenel, Georges. 72-21a; 73-23; 77-25, 209-76.
Davenport, J. Aldersey. 251-49.
Davey, Henry. 25-50.
Davidof, L. 141-75.
Davidsohn, Rob. 76-6.
Davidson, Henry T. 107-72.
Davies, Dixon Henry. 180-98; 283-87.
Davies, E. A. 142-41.
Davies, Henry. 248-74.
Davis, A. 185-70.
Davis, A. H. 12-35.
Davis, Charles Henry. 263-88; 264-11; 266-44, 49.
Davis, E. H. 213--33.
Davis, F. A. W. 67-14, 26; 169-100.
Davis, Floyd. 243-50; 283-84; 304-83; 305-4; 307-43; 308-68, 69; 309-15.
Davis, Geo. H. 266-58.
Davis, Gherardi. 190-88.
Davis, Hartley. 194-85.
Davis, Horace. 52-33.
Davis, J. De P. 3-30.
Davis, W. M. 246-28.
Dawson, Philip. 264-11; 266-46, 48; 285-24.
Dawson, W. H. 212-59; 260-21.
Day, H. S. 278-58.
Day, Richard W. 285-15.
Deady, Matthew P. 290-52.
Dean, Sedgwick. 122-35.
Dearness, J. 246-19, 22.
Debell, Edwin L. 120-41.
de Calonne, Alphonse. 35-26.
de Castelleux, Comte. 81-28.
Dechan, Bailie. 306-96.
D'Echérac, ——. 207-23.
de Circourt, Comte A. 21-54.
de Coulanges, Fustel. 97-21.
de Courmelles, Foveau. 112-95.
de Crisenoy, J. D. 71-95; 79-76, 79.
Dee, Thomas G. 254-3.
Deery, John Jerome. 283-1.
de Ferron, H. 77-23; 275-92.
de Forest, Robert W. 104-100.
de Foville, A. 229-7.
de Franqueville, Le Comte. 77-26.
de Freund, E. 267-61.
de Gães e Siqueira Filha, José. 234-21.
De Gand, Emmanuel. 73-64.
Degener, P. 250-14.
de Graffenreid, Clare. 101-94; 245-95; 312-70.
de Guer, Guérlin. 79-72; 294-52.
Dehaye, A. 276-100.
de Hornstein, Edouard. 37-63.
Dejamme, Jean 81-26, 28.

de Jong, E. W. 11-16.
de Kay, Charles. 21-60.
de Laborde, Alexander Louis Joseph. 209-67.
Delaire, A. 102-49.
De Land, Fred. 163-65.
de las Casas, William B. 29-61.
de la Sizeranne, Robert. 61-94.
Delaunoy, Léon. 81-44.
de Lautreppe, Lecoq. 207-21.
de Laveleye, Emile. 18-95; 98-26.
Delbrück, Hans. 272-97.
Dellwik, Carl. 124-69.
de Mailhol, D. 77-27.
de Malarce, A. 244-27.
De Marcère, Edouard. 79-67.
de Marco, De Viti. 110-38.
de Martinis, Ces. 110-19.
de Mattini, G. B. 159-76.
de Medeiros, J. J. Tavares. 230-22.
Deming, C. 65-69.
Deming, Horace. 52-88; 57-51; 288-1; 289-31.
Demmler, G. A. 246-81.
de Molenari, G. 97-15; 229-3.
Demombynes, Gabriel. 2-11; 14-2; 18-94; 23-4; 36-47; 58-67a; 77-37; 85-88; 85-100; 94-63; 98-24; 110-17; 203-50; 230-22; 236-57, 58, 60; 255-21; 259-7; 270-45; 275-84.
de Montmorency, J. E. G. 130-16.
de Morgan, John. 134-29; 135-35.
Dendy, H. 139-29.
de Néronde, C. 212-52.
Denham, Prierly. 84-76.
Denison, Geo. A. 256-33.
Denjean, G. 271-58.
Dennis, Nelson F. 10-4.
de Nouvoin, George. 80-99; 103-76.
Denslow, Van Buren. 194-95.
Densmore, George C. 195-3, 8.
Denton, J. B. 133-66.
Depasse, H. 210-100, 15.
De Pena, Carlos Maria. 297-23.
Deploige, Simon. 19-17; 259-14.
de Pontich, Henri. 78-40; 206-1; 207-15.
Derouin, H. 78-59.
de Rousiers, Paul. 160-91.
Derrah, Robert H. 263-83; 295-81.
de Saint Albin, Emm. 209-87.
de Sauvigney, A. Noirpoudre. 140-55.
Desbats, A. Gabriel. 79-78.
Deschanel, Paul. 79-66.
des Cilleuls, Alfred. 78-53.
de Segundo, Ed. C. 84-83.
des Marez, Guillaume. 97-19.
d'Esmenard, E. 33-65.
Desplanques, A. 72-20.
Desprès, A. 81-81.
des Rotours, J. Angot. 77-17.
de Tinguy du Pouet, J. 78-60.
de Toulza, Etienne. 77-19.
Deutsch, Ed. 20-33; 293-51.
de Variguy, C. 194-95.
Devine, Edward T. 44-35; 45-41, 46; 179-33.
Devine, James. 76-97.
Devlin, Thomas C. 7-34; 52-89; 65-72; 70-59.
Devonshire, Duke of. 159-76.
Dewart, Frederick W. 237-79.
De Weese, Truman A. 244-78.
Dewey, David R. 153-45; 168-91.
Dewey, Melvil. 116-36.
de Wiart, Carton. 18-1.
De Witt, W. C. 174-28.
de Wolf, Bradford Colt. 18-100.
De Wolf, John. 189-81.
d'Haussonville, Comte. 106-47.
Dialti, D. 109-3.
Dibble, F. L. 243-48.
Dibdin, W. J. 123-39; 145-67; 146-69; 248-84; 250-13; 251-32, 34; 307-54.
Dicenta y Blanco, D. Jose. 143-21.
Dicke, H. 124-68, 73.
Dickie, George W. J. 245-3.
Dickinson, C. A. 51-67.
Dickinson, W. H. 129-71; 146-69.
Diestelkamp, L. 89-82.
Dietrich, E. 216-64; 233-89.
Dieudonné, Emil. 212-49.
Diggle, J. R. 140-67, 68.
Dilke, Ashton Wentworth. 236-64.
Dilke, C. 14-98; 203-40.
Dilke, C. W. 4-54; 206-2.
Dill, —. 275-69.
Dillon, John F. 5-98; 71-90; 72-11.
Dimmock, W. S. 296-95.
Dittrich, —. 46-57.
di Verce, E. 110-31.
Doane S. Everett. 119-31.
Doane, William C. 126-10.
Dobbs, Archibald F. 145-58.
Docharty, Augustus T. 182-10.
Dock, Mira Lloyd. 213-79.
Dodd, Cyril. 285-19.
Dodd, E. Lawson. 101-15.
Dodd, J. Theodore. 278-40.
Dodge, W. C. 166-47.
Dodge, W. E. 224-80.
Dodson, G. R. 10-96.
Doehring, W. 21-49.
Doherty, Henry L. 122-2; 162-31.
Dohrmann, F. W. 110-18; 161-19; 206-9.
Dole, Chas. F. 64-44; 288-2.
Dole, S. Milo. 124-46.
Dolman, Frederick. 25-38; 40-81; 149-40; 153-33; 260-23; 284-90; 310-24.
Dommer, F. 117-63.
Domville, Percy. 95-91.
Donald, Robert. 17-77; 76-99; 77-35; 100-98; 101-21; 130-15; 164-80, 83; 221-9, 10; 277-12; 284-5; 287-64.
Doniol, A. 82-47.
Dooley, M. A. 91-81.
Doran, —. 159-63.
Dorman, Lester M. 189-66.
Dorr, Julia C. R. 237-72.
Doty, Alvah H. 294-44.
Doty, Paul. 123-27.
Douglas, A. S. 311-46.
Douglas, Francis T. 29-54; 33-91.
Douglas, Henry W. 194-55.
Douglas, John. 283-74.
Douglas, Orlando B. 215-47.
Dow, A. W. 219-42, 56, 57.
Dow, Alexander. 120-37, 45; 164-95; 265-16.
Dow, W. A. 71-91.
Dowdall, Chaloner. 127-39.
Downes, Edward. 11-20.
Downing, M. A. 108-91; 221-96; 293-29.
Doyle, John T. 240-65.
D'Oyly, Claud P. 282-60.

Drage, Geoffrey. 274-85.
Drago, Raff. 85-93.
Drake, C. M. 294-44.
Drake, M. M. 34-38.
Draper, A. S. 192-45; 244-81; 245-10.
Drew, A. A. W. 245-4.
Drexel, Joseph W. 187-23.
Drexler, A. 272-98.
Dreyfus, F. 78-62.
Drohan, John. 55-25.
Dros, Numa. 259-16.
Drucker, —. 103-67.
Duane, Gen. 199-71.
Du Bois, James T. 89-91.
Du Bois, W. E. Burghardt. 69-55.
Duboisdenghien, L. 19-12a.
Dubsky, Alfred O. 34-74.
du Camp, Maxime. 207-11.
Duclaux, M. 306-37.
Ducroiq, Th. 77-29.
Dudfield, T. O. 102-29.
Dudley, Helena S. 30-90.
Duff, H. 104-98.
Duffy, C. N. 263-78.
Dufour, Pierre. 231-50.
Dumas, A. 212-52.
du Mesnil, O. 207-22; 209-70; 211-46.
Dumont, Hermann. 19-15.
Dunell, George R. 149-57.
Dunham, H. P. 169-19.
Dunning, R. 266-40.
Dupin, Claude François Etienne. 80-94.
Dupuy, Paul. 210-19.
Durand, E. Dana. 57-47; 74-55; 181-83; 184-60; 198-45; 292-93.
Durham, Julian. 293-47.
Duryea, E., Jr. 68-41.
Dwyer, —. 51-56.
Dyer, Francis J. 193-58.
Dykes, A. H. 125-95.

E

Earl, Robert. 200-87.
Earle, Alice Morse. 186-93.
Earle, E. Lyell. 182-13.
Earnshaw, Edward H. 124-62.
Easby, William, Jr. 286-38.
Easley, Ralph M. 62-34.
Eastlake, W. Delano. 111-56.
Eastman, T. W. 222-27.
Eaton, Dorman B. 3-30, 50; 53-86; 66-92; 176-65; 191-21; 194-85; 278-42.
Eaton, I. 114-6.
Ebelot, A. 34-77.
Eberstadt, Rud. 103-59.
Eberty, E. 20-45; 150-71.
Eckstein, —. 11-19.
Eckstein, Ant. 231-57.
Eddy, Harrison P. 312-69.
Edgecumbe-Rogers, S. 275-65.
Edgeworth, F. Y. 73-37.
Edwards, —. 100-73.
Edwards, Clement. 282-51.
Edwards, E. J. 194-85, 86, 97; 198-42.
Edwards, H. C. J. 253-88.
Edwards, H. S. 154-63.
Edwards, Joseph. 293-18.
Edwards, Percy J. 142-2.
Edwards, W. H. 19-23; 21-62, 67; 22-82, 86; 23-98, 2.
Egan, P. 305-11.
Egerton, William S. 214-21.
Egger, —. 271-60.
Egner, Frederick. 267-79.
Eheberg, K. Th. 70-70.
Eichols, P. 32-40.
Eilvart, E. 107-61.
Einaudi, Luigi. 69-52; 159-79; 206-94.
Eitelberger, R. 258-88; 299-58.
Eldridge, W. K. 114-8; 214-13; 252-52.
Eliot, Chas. 29-59, 63; 215-82; 293-11, 24.
Eliot, Charles W. 52-88; 53-97; 245-1.
Eliot, Samuel A. 38-89a.
Ellert, L. R. 239-38.
Ellery, T. George. 10-91; 70-66; 215-23; 241-75, 76, 90.
Ellicott, Edward B. 47-76.
Elliott, A. C. 220-67.
Elliott, George Frederick. 8-40.
Elliott, J. L. 247-48.
Ellis, A. B. 70-68.
Ellis, Havelock. 227-31; 242-3.
Elsing, W. T. 44-31a; 187-21.
Elster, —. 2-10.
Elwell, P. B. 260-25.
Ely, Arthur H. 181-70.
Ely, R. T. 7-27; 9-65; 15-18; 19-21; 73-45; 85-95a; 160-85, 90; 163-54, 75; 273-34; 291-72.
Emack, Edward G. 264-100.
Embree, Frances Buckley. 47-96; 49-20.
Emerich, C. F. 228-67.
Emerson, Edwin J., Jr. 133-54.
Emery, Charles E. 177-88.
Emery, Jos. D. 52-77.
Emion, V. 207-20.
Emmet, J. T. 276-97.
Enderman, H. 219-41.
Engelmann, J. 236-62.
Engels, Fr. 102-51.
Engerth, Karl. 86-23.
Engle, E. H. 300-90.
Ensley, Enoch. 74-58.
Epps, William. 162-38.
Erdman, C. W. 32-41, 42; 89-93.
Erdmann, Wald. 89-95.
Ernouf, A. 214-7.
Ernst, —. 63-30.
Escard, Paul. 292-90.
Escudier, Paul. 206-61.
Estabrook, Harold Kelsey. 28-32.
Estes, Edith Perry. 31-13.
Etting, Theodore M. 8-55.
Eustis, William Henry. 152-26.
Evans, E. V. 57-46.
Evans, Forest L. 166-22.
Evans, F. V. 25-53.
Evans, N. 139-46.
Evans, Richardson. 10-93.
Evans, W. Arnold. 101-9.
Evarts, Wm. M. 200-86.
Evert, G. 87-36.
Everett, C. E. 153-62.
Eyre, Lincoln L. 217-83.

F

Faber-Madsen, V. 56-44.
Fahey, J. H. 31-17.
Faina, Annibale. 235-46.
Fairbanks, George R. 227-76.

Fairchild, C. B. 16-41; 30-100; 230-19; 269-17.
Fairlie, John Archibald. 60-80; 200-80; 292-87, 88.
Faisst, Rudolf. 271-68.
Fales, W. E. S. 191-12.
Falke, J. V. 214-15.
Falkenburg, Ph. 11-21.
Fall, Delos. 243-42.
Fanelli, Aug. 221-5.
Fanning, M. J. 54-13.
Fanshaw, E. L. 126-8.
Fanton, Mary A. 174-28.
Fardell, T. G. 129-77.
Farmar, A. 36-54.
Farnham, Irving T. 173-13.
Farrar, F. W. 227-63.
Fassett, Jacob Sloat. 6-13; 98-46; 198-57; 200-83.
Fatio, Guillaume. 259-18.
Faure, John P. 17-62; 177-82.
Fawcett, E. 188-50.
Fawcett, Henry. 44-26.
Fay, Emile. 78-46.
Fay, Frank B. 41-62.
Fayès, Harriet. 107-80.
Fazi, Fr. 110-34.
Featherstonhaugh, J. D. 10-8.
Fee, William T. 26-59, 60.
Felder, Cajetan. 299-55.
Fellner, F. 298-80.
Felton, Charles R. 33-57.
Fergus, Andrew. 252-65.
Ferguson, F. L. 228-64.
Fernald, James C. 126-4.
Fernow, Berthold. 185-89.
Ferrand, Joseph. 77-34.
Ferraris, C. F. 272-74.
Ferree, Barr. 11-31; 12-43.
Férrero, G. 5-92.
Ferrière, F. 85-91.
Ferris, G. T. 257-54.
Fewtrell, W. T. 121-89.
Fiamingo, Guiseppe. 163-68; 273-31.
Ficken, John F. 45-53a.
Ficklen, John R. 173-6; 309-15.
Fiedler, Ottomar. 88-62.
Field, David Dudley. 7-33; 66-97; 294-37.
Field, John W. 283-72.
Fielde, Adele M. 176-58.
Fiellet, Paul. 207-24.
Finley, John H. 41-42; 291-72.
Finley, R. J. 104-89; 293-10.
Fiordispini, Biagio. 235-35.
Firth, Frank J. 304-92.
Firth, Joseph F. B. 129-89; 130-1, 3, 7.
Fischer, A. 20-39.
Fischer, Louis E. 119-13; 166-38; 169-97.
Fischer, Paul. 133-90.
Fish, Stuyvesant. 197-33.
Fish, Williston. 258-75.
Fisher, E. A. 220-89, 91.
Fisher, Francis. 65-78.
Fisher, Geo. E. 60-80.
Fisher, Lettice. 102-30.
Fisher, W. E. 91-20.
Fisher, Wm. R. 4-61.
Fisk, Harvey E. 17-32.
Fiske, Amos K. 6-12.
Fiske, Francis S. 113-69.
Fiske, John. 289-13; 290-49.
Fitch, Geo. Hamlin. 238-14.
Fitzgerald, John E. 22-93; 152-8.
Fitzgerald, T. J. 7-26.
Fitzgerald, W. H. 166-36.
Fitzpatrick, F. A. 192-48.
Flagg, Ernest. 35-9; 106-52; 187-21.
Flagg, J. Foster. 211-37; 252-58.
Flagg, J., Jr. 191-30.
Flakky, T. 270-44.
Flattich, W. 150-69; 299-75.
Fleming, J. A. 67-23.
Fleming, Owen. 100-74; 135-45.
Fleming, Rufus. 63-25.
Flesch, —. 82-51.
Fletcher, Banister F. 131-46; 282-53.
Fletcher, Elmer D. 249-90.
Fletcher, H. J. 228-71, 86; 295-79.
Fletcher, J. 138-25; 139-45; 141-88; 145-69.
Fletcher, Robert. 249-84; 253-74.
Fletcher, Wm. I. 116-37, 45, 47.
Fletcher, William Meade. 72-15.
Flinn, Alfred D. 31-15, 21.
Flinn, J. J. 46-53.
Flint, Weston. 116-49.
Flower, B. O. 28-29, 36; 33-61; 106-55; 156-50; 231-54; 298-38.
Flower, Lamorock. 251-43.
Flower, R. P. 174-21; 190-2; 217-92.
Flower, Walter C. 173-1, 4.
Flynn, Benj. H. 297-22.
Flynt, Josiah. 227-37; 273-14.
Folks, Homer. 41-37, 38, 53; 42-85; 43-6, 7, 8; 45-42; 179-31, 38.
Folsom, De Francais. 15-29.
Folwell, A. Prescott. 250-100; 249-91; 253-83; 304-73.
Folwell, Wm. W. 215-36.
Fonsalme, —. 272-75.
Fontaine, H. 118-91.
Foote, Allen Ripley. 13-79; 70-58; 124-74; 157-32, 33; 158-42, 57, 61, 62; 159-77; 160-98, 99; 161-12, 13, 22, 23, 26; 164-96; 189-74; 196-17; 204-65; 289-15.
Ford, A. H. 268-98.
Ford, John, 72-17; 201-1.
Ford, P. L. 188-55.
Ford, W. F. 70-63; 71-93.
Ford, W. H. 224-87.
Ford, Worthington C. 289-3.
Forel, Aug. 231-55.
Forman, —. 131-34.
Forman, A. 182-15; 196-18.
Forney, Matthias Nace. 230-37; 231-40, 45.
Forrest, J. D. 158-39.
Forstall, Alfred E. 167-52.
Forster, ——. 273-24.
Fortescue, Earl. 129-88.
Foster, D. B. 115-19.
Foster, E. 17-73.
Foster, Horatio A. 165-6; 263-76.
Foster, J. F. 216-49.
Foster, L. 299-77.
Foster, Maud B. 248-63.
Foster, Roger. 182-1.
Foster, Wm. E. 234-6.
Foster, Wolcott C. 83-63a.
Fothergill, John M. 243-44.
Foulke, William Dudley. 231-40.
Fournier, Marcel. 79-71; 81-27.
Fournière, Eugene. 7-25; 159-78.

Fourquet, Emile. 273-15, 17.
Fourrey, E. R. 211-37.
Foveaux, F. 122-100.
Fowkes, Fanny. 41-47, 49.
Fowle, T. W. 277-32.
Fowler, Charles Evan. 30-95; 304-90.
Fowler, Gilbert J. 285-41.
Fowler, H. H. 283-81.
Fowler, W. Warde. 94-62; 235-34.
Fox, E. A. 48-7.
Fox, George L. 129-86; 172-69.
Fox, Hannah. 224-91, 92.
Fox, William. 308-64.
Foxcroft, Frank. 38-90.
Francis, Charles. 252-58.
Francisco, M. J. 151-97; 160-93; 161-416; 163-52; 164-93; 165-23; 166-24.
Francois, M. G. 284-92.
Frankel, Carl. 23-100.
Frankland, Edward. 303-56.
Frankland, Percy. 146-69.
Franklin, Benjamin. 36-88.
Franzioli, W. J. 195-2.
Freeman, E. A. 69-49; 274-39.
Freeman, H. F. 193-58; 248-72.
Freeman, John R. 76-3; 198-53, 56; 199-77; 303-65; 305-100.
French, Allen. 98-27; 110-21.
French, Lillie H. 13-64.
Freson, J. G. 33-71.
Freud, J. Richard. 2-25; 72-7; 239-17, 32; 240-49.
Freund, Rich. 21-56.
Friedberg, Robert. 87-50.
Friedrich, Adolf. 246-32.
Fryer, William J. 35-2; 178-13, 14; 182-9; 186-12; 187-33.
Fteley, Alphonse. 297-15.
Fuertes, James H. 9-89; 22-82; 23-98; 24-17, 18; 38-89; 50-39; 61-5; 62-6; 63-27, 29; 82-54; 92-39; 93-52; 112-73; 149-55; 150-64, 77; 156-30; 157-18; 204-53; 211-37; 234-10; 236-50; 252-58; 254-9; 280-3; 306-35; 308-75, 87; 310-39; 312-93.
Fuller, George W. 147-4; 297-16; 303-52, 78; 304-91; 307-46, 55.
Fuller, Henry B. 60-35.
Funck-Brentano, H. 208-58.
Fyfe, Peter. 101-10, 11; 92-36, 40; 240-60; 282-52.

G

Gache, Samuel. 34-78.
Gadsby, C. H. 268-4; 287-65.
Gage, Lyman J. 46-60.
Gager, Edwin B. 167-65.
Gaillard, D. D. 302-47.
Gale, James M. 93-52.
Gale, Peter. 281-21.
Gallarate, L. 110-16.
Gallatin, James. 187-40.
Galton, Douglas. 141-88.
Gamborg, J. 229-13.
Gannon, Mary Nevan. 106-52.
Garcke, Emile. 287-62.
Gardener, Cornelius. 297-11.
Gardiner, Florence Mary. 101-2, 3; 103-81; 106-51.
Gardner, E. C. 11-29; 12-38, 40; 243-34; 244-72.
Gardner, Edmund G. 76-7.
Gardner, Harry N. 24-19.
Gardner, Helen H. 178-20.
Gardner, Henry B. 70-73.
Gardner, Rathbone. 7-36.
Garfield, Harry A. 164-79.
Garfield, James R. 98-49.
Garfield, Joseph. 249-93.
Garibotti, Giuseppe. 162-45.
Garland, Caroline H. 205-72.
Garlier, G. 298-44.
Garnier, Léon. 80-7.
Garrelts, Fr. 16-55; 23-6; 237-77.
Garrett, Henry A. 262-67.
Garrett, J. H. 250-13.
Garrett, Philip C. 217-80.
Garrett, R. P. 33-59; 76-4.
Garrison, W. P. 3-30.
Gartner, J. 104-83.
Garton, W. R. 264-11.
Garvin, L. C. F. 7-32.
Gaupp, L. 86-18.
Gavett, A. J. 226-22.
Gavey, John. 261-41.
Gavin, Hector. 140-61.
Gavit, John P. 43-17; 51-70; 247-39, 42, 51.
Gay, Eben H. 71-94.
Gay, Ernest. 79-69.
Gay, Richard L. 151-81.
Gaye, A. 228-69.
Geiser, A. 312-52.
Gemünder, M. A. 70-72; 161-16; 162-36; 306-23.
Genis, M. Louis. 150-76.
Gennings, John. 137-96.
George, Henry. 187-21; 272-88.
George, John E. 48-3.
Georgievsky, H. 236-66.
Gerard, James W. 184-54, 185-82.
Gerhard, William Paul. 17-69; 43-92; 121-80; 122-3; 241-70, 81; 242-97; 243-33; 246-19; 249-85.
Germain, Eugene. 23-5.
Germain, Felix. 79-68.
Germinet, G. 122-99.
Geron, H. 287-57.
Geron, M. H. 269-15.
Gerry, M. H. 49-27; 264-11.
Gerstel, Gustav. 300-86.
Gerstfeldt, ——. 88-58.
Gevaert, Flerens. 209-69.
Ghent, W. J. 204-63; 261-50.
Gibbings, Alfred H. 166-32.
Gibbons, P. H. 121-83.
Gibbs, Phillip. 137-98.
Gibbs, William E. 118-74.
Gibson, F. M. 193-72.
Gifford, George. 259-13.
Gifford, O. P. 46-63.
Gigot, A. 132-63; 206-2.
Gilbert, William. 128-61.
Gilder, Joseph B. 185-74; 193-64.
Gilder, Richard Watson. 106-54; 187-26.
Giles, H. H. 44-32.
Giles, William A. 7-24; 64-54; 221-11; 265-92; 304-82.
Gill, Henry. 23-1.
Gill, J. P. 121-85.
Gill, Wilson L. 259-9.
Gillham, R. 293-28.

Gilman, Elizabeth. 86-27.
Gilman, Mrs. M. R. F. 248-67.
Gilman, Stephen W. 311-50.
Gilroy, Thomas F. 199-78.
Girdner, John H. 203-43, 44; 294-44.
Girling, G. E. 104-2.
Gladden, Washington. 3-30; 6-16; 7-21; 66-9; 162-39; 217-86; 272-95.
Glaister, John. 242-8.
Glasgow, A. G. 124-60.
Glazier, William. 107-75.
Glen, A. 285-23.
Glen, R. C. 132-47.
Glen, W. C. 132-47; 285-23.
Goadby, E. 126-5.
Godkin, E. L. 3-30, 51; 4-72; 7-28; 26-75; 57-45, 52; 66-1, 88; 152-20; 175-56; 176-59; 177-98; 190-99; 194-85; 198-42; 222-39; 233-96; 272-94; 278-52; 290-34.
Goes, Edmund. 154-73.
Goetz, Henry A. 35-14.
Goff, John W. 65-75.
Gollan, ——. 140-58.
Golde, (Mlle.), ——. 37-66.
Goldie, John. 43-3.
Goldsmith, N. O. 297-17.
Gomme, G. L. 4-53; 129-79; 130-95; 131-41; 133-5; 135-38; 137-5; 144-37; 274-57; 276-2, 95; 277-24.
Gondon, H. J. 60-80; 83-63a; 160-96; 238-95.
Gonzales de Junquitu, L. 255-12.
Goodale, Francis A. 43-1; 107-65; 248-66.
Goodale, W. H. 64-46.
Goodchild, F. M. 225-99.
Goodell, J. M. 249-89; 257-53.
Goodell, John. 308-83.
Goodhue, W. F. 68-38.
Goodnough, X. H. 303-51.
Goodnow, Frank J. 2-15; 6-5; 57-49; 86-10; 98-34, 37, 42; 153-45; 217-100, 1; 275-67, 73; 289-30; 290-36; 293-19; 294-36.
Goodnow, John. 253-90.
Goodrich, W. Francis. 83-65.
Goodwin, Maud Wilder. 184-61.
Goodwin, William W. 113-77; 292-100; 293-7.
Goppelsroeder, Friedrich. 37-69.
Gordon, Clarence. 51-70; 247-41.
Gordon, Geo. Brydon. 99-47.
Gordon, J. 243-29.
Gordon, J. E. H. 120-50.
Gordon, W. J. 91-17; 142-99.
Gordon-Cumming, C. F. 37-55.
Gordes, H. 268-90.
Gore, J. H. 98-28.
Gorst, John E. 273-26.
Gory, A. 78-59.
Goschen, G. J. 280-100.
Gossett, A. 104-7.
Gottgetreu, R. 157-19.
Gottwald, J. 56-38.
Goudy, H. 276-12.
Gould, E. R. L. 16-44; 35-4; 69-53; 100-65; 101-12, 23; 104-84; 105-18; 186-7; 222-23; 241-77, 94.
Gould, E. Sherman. 96-3; 199-66; 304-72.
Gould, S. B. 37-55.
Goument, Charles E. V. 11-14; 254-95.
Gowdy, John K. 210-10, 98.
Gowen, Charles S. 190-68.
Gower, F. Leveson. 228-73.
Grace, S. P. 60-81.
Grady, John. 28-20.
Graetz, L. 118-87.
Graham, A. H. 276-7.
Graham, H. G. 63-22; 91-23.
Graham, J. C. 280-1.
Graham, P. Anderson. 228-75.
Graham, Robert. 189-64.
Grahn, E. 90-12.
Grant, James. 63-21.
Grant, John H. 98-44.
Grant, Joseph D. 258-99.
Granville, Austyn. 48-99.
Graves, E. O. 246-33.
Gray, George G. 96-2.
Gray, John Henry. 28-42; 50-32; 151-91, 92; 162-49; 164-91; 167-53; 210-97; 299-60.
Gray, Samuel M. 225-4; 302-33.
Gray, W. N. 95-90.
Greathead, J. H. 145-50.
Green, ——. 161-18.
Green, Andrew H. 175-45; 180-48; 198-49.
Green, G. W. 64-37; 66-91; 71-93.
Green, John Richard. 247-44.
Green, (Mrs.) J. R. 281-26.
Greene, Francis V. 175-43; 218-18.
Greene, Thomas L. 291-67.
Greenlaw, Edwin A. 152-21.
Greenough, M. S. 122-90.
Greenwood, F. 44-33.
Greenwood, T. 116-44.
Greg, P. 135-42.
Gregorovius, Ferdinand. 235-43.
Gregory, C. Noble. 64-59.
Gregory, R. A. 139-43.
Gregory, W. D. 261-57.
Grelot, Felix. 77-28.
Greville, Lady V. 133-81.
Gribayédoff, V. 188-62; 191-24.
Gribble, T. Graham. 196-11; 269-6.
Grierson, Frank W. 145-65.
Griffin, Percy. 106-52.
Griffith, Percy. 283-75; 288-87; 308-80.
Griffiths, Arthur. 210-17; 227-35.
Griffiths, William Russell. 132-51.
Griggs, Julian. 55-24; 250-50.
Grimaldi, G. 109-99.
Grimes, George R. 219-61.
Grimm, Karl. 244-68.
Grimshaw, Robert. 22-87; 32-46; 211-42; 220-72, 78, 90; 221-100; 258-72; 303-61.
Grindling, C. H. 144-44.
Grinnell, Wm. F. 149-63.
Griscom, John H. 186-17.
Gross, Charles. 280-5, 18; 281-22, 23, 28.
Grosse, Karl. 115-28.
Grosseteste-Thierry, ——. 78-57.
Grosvenor, Edwin A. 56-34.
Grout, Edward M. 162-29; 189-74.
Grubb, E. B. 65-68a.
Grunsky, C. E. 98-32; 252-58.
Guastalla, Mich. 235-38, 39.
Gudger, ——. 206-97.
Guggenheimer, Randolph. 189-83.
Guichard, Charles. 94-66.
Guignard, A. 80-14
Guillaume, Eugène. 82-48.
Gulick, Sydney L. 248-72.
Gulland, John W. 63-20.
Gumbleton, H. A. 181-80.

Gunkle, L. B. 204-60.
Gunn, O. B. 220-84.
Gunton, Herbert C. 25-56; 133-10.
Gurteen, S. Humphreys. 44-16.
Guthrie, E. B. 34-81, 94, 96; 68-36; 219-50; 269-26.
Guthrie, Geo. W. 226-10.
Guthrie, Ossian. 49-22.
Guyer, I. D. 47-90.
Guyot, Yoes. 130-5; 206-2, 7; 208-56; 227-33; 232-64.
Guzzi, Guis. 110-27.
Gwinn, Dow R. 233-95; 305-97; 307-61.

H

Haag, M. 212-52.
Hadden, —. 275-70.
Hadden, R. H. 132-73.
Haffen, Louis F. 177-96.
Hagen, E. 118-88.
Haight, A. S. 217-84.
Haines, R. 225-3.
Hake, A. E. 132-66.
Hale, C. 71-2.
Hale, Edward Everett. 3-30; 27-92; 28-23, 24, 37; 98-34; 176-64; 227-57; 290-45.
Hale, George W. 227-42.
Hale, R. S. 120-36.
Hall, Bolton. 105-29; 126-19.
Hall, C. C. 70-71.
Hall, Charlott C. 182-15.
Hall, Edwin T. 243-47.
Hall, Hans. 271-70.
Hall, Henry W. 144-44.
Hall, L. M. 107-64.
Hall, W. H. 214-9.
Halstead, Carolyn. 193-58.
Halstead, Leonora B. 2-16.
Halstead, Marshal. 25-44; 144-38, 42.
Halstead, Murat. 94-75; 177-98.
Hamilton, Annie. 235-43.
Hamilton, James H. 89-98; 229-90; 229-5; 260-29; 261-44.
Hamilton, Peter J. 155-98.
Hamilton, William Gaston. 18-83; 177-83.
Hamlin, A. D. F. 11-28; 36-35.
Hamlin, Leonora. 42-78.
Hamlin, Tennis S. 51-60.
Hammer, William J. 270-34.
Hammerton, J. A. 91-19.
Hammond, Jabez D. 201-17.
Hammond, M. B. 228-78.
Hammond, Robert. 282-59; 284-94.
Hampden, Guy. 167-64; 266-52.
Hampel, W. 214-16.
Hancock, W. Neilson. 274-52.
Hancock, C. 154-69; 156-11.
Hand, J. E. 7-22; 100-70; 141-74; 276-2; 278-40; 288-94.
Handcock, H. W. 125-95.
Hands, Alice J. 106-52.
Handy, William Matthews. 47-75.
Haney, James P. 244-74.
Hansen, Georg. 229-11.
Hansom, J. M. 248-64.
Häntzschel, W. 21-51; 22-84.
Harder, Julius F. 13-73; 258-81.
Hardesty, W. P. 59-71.
Harding, Burcham. 261-53.
Hardy, C. 108-68.
Hare, H. T. 157-21.
Hare, J. 120-98.
Hare, Thomas. 230-33, 35.
Harlow, James H. 10-9; 226-19.
Harmon, Jacob A. 303-83.
Harper, J. M. (W?). 52-81, 83.
Harrington, John W. 190-11.
Harris, D. L. 70-65.
Harris, Elisha. 242-20.
Harris, G. M. 120-47; 123-43.
Harris, H. Percy. 135-42.
Harris, J. A. 26-71.
Harris, Mary Dormer. 57-59.
Harris, Norfleet. 115-17.
Harris, T. William. 264-6.
Harris, Wm. T. 244-81.
Harrison, (Mrs.) Burton. 185-69.
Harrison, C. 128-50; 129-77.
Harrison, Carter H. 4-63; 6-11.
Harrison, F. 128-49; 129-84, 86.
Harrison, Frederic. 56-36; 64-51; 97-20; 131-25; 137-95; 208-64; 283-90.
Harrison, George A. 108-88.
Harrison, John. 164-80.
Harrison, L. 55-32.
Harkness, M. E. 131-20.
Harper, George H. 122-94.
Harrod, B. M. 173-4.
Harrod, M. D. 135-42.
Harston, Frederick. 41-61.
Hart, A. B. 39-5; 245-89; 291-82.
Hart, E. 132-63.
Hart, Edward James. 93-60.
Hart, T. N. 7-32.
Hartmann, von K. 117-65.
Hartwell, Alfred M. 17-76.
Hartwell, Edward M. 71-35; 256-35.
Hartwell, Frank N. 147-1.
Harwood, W. S. 155-90.
Haskell, John C. 152-15.
Haskins, Caryl D. 120-35.
Hassard, J. R. G. 178-21.
Hasse, Ernst. 115-29.
Hasson, W. F. C. 240-43.
Hastings, Charles W. 233-66.
Hastings, Elizabeth. 247-46.
Hastings, F. 136-79.
Hastings, L. M. 33-95; 68-43; 219-60; 249-98.
Haswell, C. H. 185-90.
Hatcher, E. N. 220-70.
Hathaway, S. J. 219-60.
Hatschek, Julius. 9-68.
Hatton, Joseph. 7-32.
Hatton, T. Chalkley. 310-35.
Haupt, Hermann. 264-99, 100.
Haupt, Lewis M. 68-40; 225-1; 228-86; 269-6; 293-28.
Hauriot, —. 304-86.
Hauriou, Maurice. 78-39.
Hausen, P. Ch. 102-42.
Haussman, Georges Eugène. 208-62.
Haussmann, —. 299-63.
Haussmann, Carl A. 81-19.
Haven, C. C. 270-33.
Haw, George. 136-68.
Hawley, Walter L. 182-100.
Hayes, George W. 220-77.
Haycraft, Thomas Wagstaff. 284-11.
Hayes, H. H. 12-37.

Hayter, Richard. 101-16.
Hazen, Allen. 10-2; 22-82, 83; 212-63; 225-3; 250-3; 297-19; 303-78; 304-75, 84; 307-43, 48.
Haslewood, Arthur. 154-58.
Haslitt, W. Carew. 128-66; 298-40a.
Headlam, Cecil. 204-55.
Headlam, Stewart D. 140-68.
Heath, F. G. 216-70.
Heather-Bigg, A. 114-2.
Hecht, E. 258-89.
Hecke, Wilhelm. 299-71.
Hedenberg, W. L. 250-19; 252-71; 308-81.
Hedges, Killingworth. 119-21; 120-52; 296-84.
Hegel, Karl. 88-65, 75, 76.
Hegner, Herman F. 248-76.
Heiden, E. 252-60; 253-87.
Heilprin, Louis. 196-11, 16.
Heim, Albert. 312-82.
Heim, John B. 148-17, 18; 169-3, 10; 303-69; 305-12; 306-21.
Heins, Maurice. 19-10, 11, 13; 133-1; 272-82.
Held, Otto. 89-96.
Heldt, P. M. 48-2; 215-26.
Hemming, A. 259-8.
Hemstreet, Charles. 185-84.
Henderson, Charles R. 44-10, 31; 50-42; 248-64.
Henderson, Harry B. 71-82.
Hendricks, Geo. B. 163-63.
Henman, William. 42-86.
Hennessy, Charles O'Connor. 197-37.
Hennicke, Jul. 150-74.
Henning, B. S. 267-80.
Henri, Albert. 19-4.
Henry, Frank R. 263-79.
Henry, John C. 265-21.
Henry, William Wirt. 234-14.
Henschel, Albert E. 175-47.
Hepworth, T. C. 119-25.
Herbert, William. 135-33.
Hereward, L. A. 180-47.
Hergner, Herman F. 48-17.
Hering, Carl. 266-39.
Hering, Rudolph. 13-86; 21-50; 68-37; 83-63a; 95-78; 225-94, 4; 249-84; 250-3; 252-58; 302-33; 304-78; 309-15.
Herkner, H. 271-68.
Herman, E. A. 251-32.
Hermann, August. 52-78; 291-69; 297-21.
Hermann, Ernest F. 299-81.
Herrfurth, L. 88-61.
Herrick, Albert B. 67-17, 22; 265-30, 31.
Herring, W. R. 122-92, 95.
Herschel, Clemens. 171-42; 218-31; 236-49.
Herschell, Lady. 207-27.
Hersh, Grier. 162-47.
Herzberg, E. 233-90.
Herzfeld, A. G. 125-2.
Herzfeld, Gustav. 175-46.
Herzog, Josey. 270-40.
Hesketh, Thomas. 125-80.
Hesse, A. 80-92.
Hetherington, F. A. 221-98.
Heulings, W. H., Jr. 263-91.
Heusler, Andr. 88-77.
Hewart, Beatrice. 131-31.
Hewes, F. W. 193-72; 294-55.
Hewett, Charles. 266-45.
Hewington, Frank A. 63-26.
Hewitt, Edward Ringwood. 184-40.
Hewitt, Mary Ashley. 184-40.
Hewson, Thos. 115-23.
Heyden, ——. 90-3.
Heyer, Edith. 48-18.
Heysinger, ——. 307-45.
Hibbard, George S. 223-85.
Hibbs, E. D. 269-16.
Hickenlooper, Andrew. 125-38; 166-49.
Hicks, W. L. 30-94.
Hickson, W. E. 128-63; 130-96; 276-96.
Hield, Willard J. 262-73.
Hiersemann, K. W. 214-3.
Higby, Clinton D. 239-14.
Higgins, Edward E. 168-75; 189-77; 264-10; 267-69, 71, 83; 270-35; 296-89, 94.
Higginson, Thomas Wentworth. 28-24; 138-21; 245-89.
Higgs, P. 118-3.
Hildreth, Arthur. 166-45.
Hill, A. Bostwick. 249-98; 250-22.
Hill, Alfred. 43-91.
Hill, C. T. 199-79.
Hill, Charles Shattuck. 49-23.
Hill, Florence D. 41-47.
Hill, George Everett. 35-3, 20; 83-63a; 96-4; 186-2; 252-58.
Hill, Hawthorne. 235-49.
Hill, John C. 310-19.
Hill, John W. 23-99; 95-88; 158-55; 159-74; 307-53; 308-70; 309-94, 95, 96.
Hill, Octavia. 100-78, 82; 104-92; 106-49; 135-42, 46, 51; 137-87; 214-97; 248-69.
Hill, William R. 169-9; 260-29; 303-54.
Hillyer, George. 13-89; 309-15.
Himmelwright, A. L. A. 35-8; 75-93.
Hinsdale, B. A. 244-81; 294-54.
Hinton, R. J. 179-38.
Hirsch, Adolph. 59-73.
Hirschberg, Ernst. 21-57; 273-30.
Hirschwald, A. 258-76.
Hirst, F. W. 70-71.
Hitching, Brooke. 133-18.
Hitz, J. 301-24.
Hoadley, G. 65-68a.
Hoare, Alfred. 134-14.
Hobhouse, Arthur. 74-63; 129-88; 130-96; 133-6; 136-67.
Hobhouse, Henry. 130-99; 275-80.
Hobhouse, Lord. 129-78.
Hobrecht, ——. 148-35.
Hobrecht, James. 22-81.
Hobson, J. A. 43-37; 44-22; 45-36; 223-2; 271-48; 272-81, 85.
Hodder, Frank H. 2-18, 19; 24-11, 11a; 46-71; 47-92.
Hodge, J. Aspinwall, Jr. 168-86; 201-3; 257-74.
Hofer, Thomas. 212-65.
Hoffman, E. F. 66-95.
Hoffman, Frank S. 85-1; 3-45.
Hoffman, Frederick L. 242-100.
Hoffman, Murray. 181-89.
Hofmann, E. 23-6a; 237-77; 259-9; 260-20.
Holbach, F. 12-55.
Holcomb, William P. 221-18.
Holden, Edward S. 116-40.
Holden, L. E. 214-12.
Holder, W. 281-40.
Holdsworth, W. A. 276-4.
Hole, James. 99-50.

Holland, B. 139-38.
Hollander, J. H. 15-10, 21, 26; 52-77a; 293-15.
Hollingshead, J. 136-61.
Hollond, E. W. 132-76.
Holls, Fredcrick William. 64-52; 98-43.
Holman, H. 285-31.
Holman, M. L. 90-13; 237-93.
Holmes, A. B. 118-2.
Holmes, (Mrs.) Basil. 132-53.
Holmes, Daniel B. 264-3.
Holmes, F. M. 130-11; 132-61.
Holmes, G. J. 144-45.
Holmes, H. C. 297-12.
Holmes, Howard M. 37-61.
Holt, Byron W. 73-50.
Holthof, F. 118-85.
Holvoet, ——. 19-2.
Holyoake, M. O. 137-88.
Homan, George. 237-89.
Homes, Walton H. 263-84.
Homo, H. 45-54.
Honeyman, John. 100-74, 75; 281-31.
Honoré, F. 212-59.
Hooker, George E. 29-50; 49-24; 268-5.
Hooker, Samuel C. 225-3; 304-78.
Hoole, E. 100-79; 135-42.
Hooper, L. H. 208-38; 211-37; 221-7.
Hoopes, Maurice. 263-2.
Hope, Wm. 309-8.
Hopewell, Charles F. 120-53.
Hopkins, Albert Bassett. 128-53; 143-28.
Hopkins, Henry. 100-93; 112-67; 125-94.
Hopkins, John S. 65-85.
Hopkins, Nevil Monroe. 301-27.
Hopkins, William Rowland. 54-12.
Hoppes, John J. 306-41.
Horden, F. S. 37-58.
Horetzky, C. 252-58; 253-81; 262-64.
Hornaday, W. D. 14-91.
Hornaday, William T. 190-97.
Hornbrook, R. S. 69-48.
Hornby, John. 124-54.
Horr, Nelson T. 227-38.
Horsfall, T. C. 102-25.
Horstmann, L. 16-55; 23-6.
Horsley, J. W. 100-89; 102-32.
Horton, S. D. 231-43.
Hoskin, A. A. 283-11.
Hosmer, ——. 75-87.
Hosmer, G. W. 83-63a; 252-58.
Hosmer, James Kendall. 3-46.
Hosmer, Katharine. 302-48.
Hospitalier, E. 118-99.
Hoster, Wm. Johnson. 223-66.
Hotchkiss, Wm. Horace. 3-47; 98-34.
Hough, D. L. 227-52.
Hough, J. S. 225-97.
Houston, Edwin J. 266-37.
Howard, Charles Morris. 15-30.
Howard, Ebeneezer. 228-61.
Howard, George Elliot. 292-86.
Howard, George W. 15-23.
Howard, J. W. 218-27; 219-36, 37, 39; 221-92; 257-49, 50, 51.
Howard, William Willard. 93-57; 154-71; 155-87; 238-97; 246-34; 260-31; 261-49.
Howe, Frederic C. 291-74.
Howe, Irving E. 219-60.
Howe, Rufus. 194-85.
Howe, W. W. 173-97.
Howell, George. 100-77.
Howell, W. G. 266-49.
Howells, Anthony. 39-9.
Howes, Osborn. 165-99; 266-60.
Hoy, William Alexander. 186-96.
Hubert, P. C. 203-42.
Hubon, E. 117-71.
Hudetz, Jos. 299-78.
Hudson, Richard. 3-38.
Hügel, ——. 231-49.
Hughes, A. J. 108-87.
Hughes, B. 122-93.
Hughes, J. L. 261-59.
Hugo, C. 103-70, 74; 284-93.
Hulbert, Archer Buller. 218-21.
Hull, Charles H. 62-12; 135-30.
Hull, W. I. 41-44, 55.
Humphrey, Richard L. 224-75.
Humphreys, A. C. 123-24.
Humphreys, C. J. R. 117-55.
Humphreys, Mary G. 41-55.
Humphries, N. A. 285-14.
Humphrys, Norton H. 84-85; 120-55; 121-76; 122-11; 283-65.
Hungerford, Churchill. 58-64; 304-78.
Hunt, Fred W. 60-85, 85a.
Hunt, H. H. 265-34.
Hunt, John. 128-56.
Hunt, William. 33-55.
Hunter, D. 293-3.
Hunter, Dunlany. 261-47.
Hunter, John. 303-59.
Hunter, R. 42-79; 139-39; 214-98.
Hunter, Thomas. 284-99.
Hunter, Walter. 146-69.
Huntington, J. O. S. 104-93.
Hurd, Henry M. 43-89, 90.
Hurd, W. T. 164-94; 165-8.
Hurlbuts, H. H. 47-84.
Huss, George Martin. 35-9; 106-52.
Huston, C. D. 306-33.
Hutchinson, Joseph. 278-55.
Hutton, Lawrence. 183-54.
Hutton, William Holden. 56-35, 37.
Hutton, Wm. R. 177-95.
Huyette, W. S. 305-3.
Hyams, Walter. 311-42.
Hyatt, A. 215-34.
Hyde, Frank E. 147-11a.
Hyslop, James H. 5-81; 44-17.

I

Iglehardt, F. C. 189-67.
Ilbert, Lettice. 101-13; 127-32.
Iles, George. 24-15; 195-96.
Ilgen, F. H. W. 120-57.
Imbart de la Tour, Jean. 78-65.
Ingals, E. F. 48-13.
Ingersoll, Ernest. 180-66; 190-8; 194-95; 196-26.
Ingham, J. A. 136-80; 229-98.
Ingham, W. 262-68.
Inglehart, Ferdinand C. 126-23.
Ingram, Arthur F. Winnington. 51-74.
Insley, Edward. 65-86.
Insull, Samuel. 60-82.
Irving, D. 67-11, 23.
Irving, Washington. 185-73.
Ivins, Wm. M. 3-30; 64-58; 65-81; 70-71; 217-94.

J

Jackson, J. 83-63a; 257-65.
Jackson, William. 29-69; 63-36.
Jacobus, D. S. 117-53.
Jager, H. 214-8.
James, C. C. 205-84; 256-36, 40.
James, Edmund J. 7-29b; 20-40, 43; 22-95; 46-69, 70; 87-43; 94-73, 74; 166-43; 212-52, 55; 228-86.
James, H. 278-56.
James, H., Jr. 209-86.
James, W. H. 132-73.
Jameson, J. F. 174-21; 185-81.
Janes, L. G. 4-73; 9-71; 171-56; 290-32.
Janin, George. 250-13; 251-32.
Janvier, Charles. 172-86.
Janvier, Thos. A. 184-59.
Jarvis, W. 154-68.
Jasper, William H. 182-96.
Jastrow, Ignaz. 87-34; 88-71.
Jay, A. O. 130-10; 133-81.
Jay, Raoul. 16-54; 237-77; 272-83.
Jean, Charles. 82-45; 212-56.
Jeannel, ——. 216-66.
Jebens, A. W. 86-6.
Jemot, ——. 69-45.
Jenkins, A. J. 309-10.
Jenkins, E. H. 67-14; 121-84.
Jenkins, H. M. 3-52.
Jenks, Edward. 203-37; 275-77.
Jenks, Jeremiah W. 64-61; 98-41; 231-40; 278-62.
Jenness, C. K. 239-24.
Jensen, Gerard J. E. 241-82.
Jernegan, Marcus W. 234-5.
Jevons, W. Stanley. 11-23; 116-38.
Jewett, F. G. 181-72.
John, J. B. 68-30.
Johnson, Alexander. 43-96; 45-38; 207-27.
Johnson, Edward H. 266-47.
Johnson, G. H. 269-6.
Johnson, Henry V. 160-93; 161-16.
Johnson, J. A. 74-73; 98-45.
Johnson, John Butler. 251-40.
Johnson, Lewis. 173-99.
Johnson, Thomas L. 204-67.
Johnson, Tom L. 301-14.
Johnson, W. P. 186-13.
Johnson, Woolsey McA. 96-97.
Johnston, Albert. 53-94.
Johnstone, Ralph W. 134-20.
Jolliffe, J. T. 125-97.
Jolly, L. 89-100; 245-92.
Joltrain, A. 211-31.
Jonary, Leon. 242-12.
Jonas, Charles. 238-5.
Jones, ——. 161-18.
Jones, Augustine, 214-98.
Jones, Beatrix. 213-67.
Jones, C. E. 169-12.
Jones, Charles S. 135-47.
Jones, Dwight A. 163-89.
Jones, Edward D. 45-49.
Jones, Ed. H. 95-89.
Jones, Harry W. 213-87.
Jones, Hugh R. 105-35.
Jones, L. H. 246-15.
Jones, John. 262-62.
Jones, M. Katharine. 24-16; 247-38.
Jones, Samuel M. 7-37; 159-64; 160-93; 261-51.
Jones, Wallace S. 235-48.
Jordan, David Starr. 3-30; 5-96; 105-93; 288-96.
Jordan, Edwin O. 49-22.
Jouanne, G. 118-76.
Jourdan, Gustave. 80-3, 5, 98; 81-35; 103-64; 105-24; 211-27; 242-96, 14.
Judd, Max. 299-66, 72.
Judge, Mark H. 126-22.
Judson, Frederick N. 155-37.
Judson, H. P. 5-80.
Judson, Wm. Pierson. 218-15.
Juillet, Saint Laeger. 79-70, 77.
Junger, O. 257-67.
Jürgens, R. 213-76.
Justo y Villanueva, L. 148-25.
Jutzi, W. 273-21.

K

Kähler, W. 88-57.
Kalle, ——. 35-99.
Kasson, John A. 7-32; 299-54.
Keasby, Edward Quinton. 120-54; 292-4.
Kedzie, Robert C. 154-60.
Keeler, Bronson C. 166-41.
Keeler, H. E. 159-66.
Keenan, George. 32-39.
Keene, W. F. 40-30.
Keller, John W. 179-38; 217-5.
Kelly, Daniel V. 239-25.
Kelley, Florence. 41-40, 58; 47-79; 48-18; 49-26; 179-26.
Kelley, Frank Bergen. 184-49; 185-67.
Kellogg, Charles D. 290-55.
Kelly, Edmond. 174-21, 23, 26; 176-64.
Kelsey, Albert. 11-27.
Kelso, W. W. 84-74, 76.
Keltie, J. Scott. 1-7a.
Kemmler, E. A. 219-60, 62.
Kemp, J. 95-93.
Kempner, Otto. 7-31.
Kempster, Walter. 59-78.
Kendall, Edward H. 192-35.
Kennan, George. 243-55, 56.
Kennedy, Alexander B. W. 143-22.
Kennedy, John L. 170-33.
Kennedy, H. Milton. 195-100.
Kennedy, Wm. M. 10-8.
Kent, Chancellor. 174-16.
Kent, Charles A. 59-75.
Kenyon, Clarence A. 221-98.
Kerr, Charles H. 81-41.
Kerr, James W. 239-17.
Kettell, T. P. 180-52.
Key, A. Cooper. 111-62.
Kibler, Edward. 204-64, 66.
Kickbusch, F. W. 256-41.
Kiersted, Wynkoop. 252-63; 307-57; 308-78; 309-98.
Kies, W. S. 66-94; 168-77.
Kilvington, Samuel S. 83-71.
Kimball, Geo. A. 68-35.
Kimball, W. M. 235-33.
King, A. B. 194-90.
King, Charles. 199-67.
King, F. W. N. 153-34.
King, George R. 215-23.
King, Grace. 173-94, 95.

King, Hamilton. 254-94.
King, Joseph. 141-76; 285-37.
King, L. M. 240-53.
King, Moses. 175-53.
King, William F. 199-69, 74.
Kingsbury, F. J. 229-93.
Kingsbury, Mary M. 193-65.
Kingsmill, Esther T. 41-48.
Kinkead, T. L. 179-38.
Kinnicutt, Leonard P. 249-86, 87; 285-38.
Kirchner, Otto. 153-53.
Kirk, Robert J. 56-42.
Kirkbride, C. N. 292-96.
Kirkbride, Franklin B. 17-72; 223-56; 298-39.
Kirkland, Joseph. 46-63; 47-95.
Kirkpatrick, E. A. 245-86.
Kirkpatrick, Samuel R. 223-61.
Kirtland, Edwin L. 98-33.
Kissam, George. 263-82.
Kitchin, G. W. 310-41.
Kitson, Arthur. 122-97.
Kittilsen, Edward. 84-76; 155-99.
Kittredge, A. O. 263-75, 78, 80.
Klapp, Eugene. 266-54.
Klasen, L. 102-38.
Kleinschmidt, F. 31-7.
Klickman, Wilfred. 144-42.
Knapp, A. 239-17.
Knapp, J. M. 248-71.
Knapp, Louis H. 34-96.
Knight, Charles W. 11-13.
Knight, Frank E. 265-32.
Knight, George W. 158-45.
Knight, Herbert. 274-45.
Knight, Maria. 233-40.
Knopf, S. A. 107-71.
Knott, G. H. 128-50.
Knott, W. W. 43-99.
Knowles, A. J. 144-44.
Knowles, C. M. 136-53.
Knowles, Morris. 226-21; 304-78.
Knox, E. F. Vesey. 287-54.
Knox, George W. 265-19.
Knudson, A. A. 67-13, 14; 111-58; 188-57; 233-100; 312-75.
Kobatsch, Rudolph. 299-53.
Koch, A. 106-37.
Koch, G. 95-80.
Koestler, Hugo. 300-87.
Kohl, J. C. 229-100.
Kohnke, Quitman. 83-63a.
Koller, Theodor. 84-84.
Kollman, J. 34-74.
Kollock, Henry. 200-88.
Koppe, ——. 86-29.
Koren, John. 125-3; 126-13, 20; 189-65; 202-22.
Korösi, Jos. 71-96.
Kotze, Otto. 85-5.
Kotzmann, A. 273-23.
Kramer, ——. 121-68.
Krannbals, Erich. 156-5.
Krieger, H. 22-91.
Kriehn, George. 12-53.
Kromayer, Ernst. 282-66.
Kropotkin, P. 42-81.
Krout, Mary H. 203-36.
Kruse, W. 228-82.
Kruseman, H. 103-73.
Kübler, William. 270-36.
Kuczynski, R. 229-96.
Kudlich, Herman C. 226-27.
Kuhn, Emil. 97-17.
Kühn, Jos. 112-75; 298-52.
Kühn, Julius. 281-52.
Kuichling, E. 169-5; 235-31; 305-95; 310-21.
Kummel, W. 307-43.
Kuntze, Osc. 244-61.

L

Labriola, Arturo. 163-57, 61, 71.
Lacava, P. 110-33.
Lackie, W. W. 119-17.
Laffitte, J. P. 230-36.
Laidlaw, Walter. 179-40.
Laing, J. B. 71-80.
Laird, John A. 237-93.
Lake, Edward N. 161-24.
Lakes, Arthur. 54-20.
Lalor, John J. 1-1; 65-84; 71-93; 97-15.
Lamb, Chas. R. 12-32.
Lamb, Frederick S. 12-54; 13-64.
Lamb, Martha J. 134-51; 135-69.
Lamb, W. H. 243-54.
Lambelin, Roger. 129-90; 289-28.
Lambert, Brooke. 132-72, 74.
Lambert, Carlton. 117-52.
Lammers, ——. 88-56a.
Lamson, D. F. 150-65.
Lanck, L. 242-16.
Lanciani, Rodolfo. 235-44.
Lander, H. C. 281-80.
Landis, Henry K. 122-91; 199-65.
Landon, Judson S. 244-70.
Lane, M. A. 47-80; 50-34.
Lang, A. E. 165-18; 168-84.
Lang, Evelyn M. 111-47.
Lang, Otto. 312-90.
Langbein, G. F. 180-54.
Lange, E. 260-20.
Lapworth, Herbert. 25-51.
Larcier, Ferd. 18-98.
Lardner, James F. 168-88.
Larocque, Jos. 4-78.
La Ruse, Benj. F. 252-58.
Laspeyres, E. 104-95.
Lass, Alfred. 145-60.
Lassar, O. 17-63.
Latham, Baldwin. 241-71.
Latham, Frank. 250-20.
Lathe, Agnes M. 15-27; 150-73.
Latimer, George D. 238-6.
Latrobe, C. H. 295-62.
Latrobe, F. C. 15-9.
Latta, James W. 165-99.
Laugel, A. 206-2; 208-47.
Laughlin, J. Lawrence. 160-1; 162-33.
Launay, ——. 211-39.
Laurent, Emile. 80-4; 105-25.
Laurent, H. 244-66.
Laurent, M. A. 210-11.
Laurent, M. H. 211-35.
Lauterbach, Edward. 201-99.
Lauth, Charles. 211-36.
Lavallée, Albert. 206-2.
Lavergne, F. 81-87a.
Lavergne, P. 78-61.
Lavery, James A. 113-90.
Laves, Kurt. 43-13.

Lavezzari, A. 267-77.
Lavollée, Rene. 102-46.
Law, Alice. 231-27.
Law, Henry. 250-16.
Law, Herbert E. 239-17.
Law, Herbert Henry. 249-88.
Lawrence, A. R. 182-99.
Laws, W. George. 171-54.
Lawson, Albert G. 50-47.
Lawson, H. L. W. 129-75.
Lawson, W. R. 265-23.
Lawton, Charles E. 176-63.
Lawton, G. W. 63-32.
Lay, Julius G. 255-17.
Lazare, Louis. 209-68.
Lea, Henry C. 4-63; 7-23; 223-44.
Lea, R. S. 304-90.
Leach, Orlando. 200-89.
Leake, Mrs. Percy. 107-77.
Learned, Henry B. 42-18.
Leas, C. A. 243-29.
Leavitt, John B. 176-59; 177-83; 191-24.
Le Bailly, A. J. 271-50.
Lebon, André. 77-22.
Leclerc, M. 86-9.
Le Cour, C. J. 140-50; 207-31; 210-22.
Ledoux, J. W. 23-7; 153-30; 304-90.
Lee, B. 242-98.
Lee, G. W. 273-34.
Lee, J. 113-97; 114-2.
Lee, M. N. 301-3.
Leeds, Albert R. 294-42; 307-43.
Lees, Herbert. 166-44.
Lefebre, G. 215-30.
Lefèvre, André. 78-49; 207-26; 213-70.
Lefevre, G. Shaw. 140-52; 142-4; 146-69.
Leffmann, Henry. 225-3; 305-94.
Legge, Hugh. 146-33.
Legoyt, Alfred. 228-72.
Legrain, ——. 80-10.
Lehmann, O. 216-61.
Lehr, A. 115-27.
Lehr, J. 103-57.
Leidig, Eugen. 86-14.
Leighton, Baldwin. 247-45.
Leighton, J. 128-51.
Leighton, S. 276-1.
Leipziger, Henry M. 188-51.
Leisen, Theodore A. 310-34.
Leitsch, W. C. 55-23; 70-77.
Le Morris, G. 141-79.
Leone, Enrico. 163-70.
Leporini, Gius. 111-45.
Leppington, C. H. de E. 44-12.
le Rossignol, A. E. 296-93.
Le Roy, P. A. 86-25.
Leroy-Beaulieu, Paul. 77-16; 208-54; 236-63; 272-86; 275-59.
Lescuyer, P. 77-31.
Leseure, E. K. 269-13.
Lespinasse, Geo. S. 210-3; 212-50, 57.
Letchworth, William P. 41-52.
Lethaby, W. R. 11-30.
Laugny, Georges. 212-52.
Leuthold, C. E. 86-21.
Levasseur, E. 229-12; 245-90.
Levermore, Charles H. 172-65, 66.
Levey, Edgar J. 182-95.
Levy, ——. 69-45.
Levy, A. 120-61; 122-1; 209-94.
Levy, E. C. 234-18.
Levy, J. M. 181-76.
Lewes, C. L. 214-94.
Lewes, Vivian B. 117-67; 124-71, 72.
Lewis, Alfred Henry. 197-30.
Lewis, Alice. 135-42.
Lewis, Austin. 239-81; 240-50.
Lewis, Charlton T. 158-56.
Lewis, Elizabeth Dike. 185-87.
Lewis, John C. 258-95.
Lewis, N. P. 74-65; 75-76; 219-45; 220-82, 83; 267-26.
Lewis, W. A. Aylmer. 205-89.
Lewis, Wm. D. 4-70; 224-80.
Lewisham, ——. 137-3.
Lexis, ——. 2-10.
Lexow, Clarence. 175-34; 191-22.
Liberty, W. J. 138-12.
Liebenam, W. 235-42.
Liesegang, Erich. 83-74.
Liger, François. 211-33.
Lightner, W. H. 238-95.
Lincoln, Alice N. 31-25.
Lincoln, G. W. 207-30.
Lincoln, Mary J. 29-48; 150-73.
Lindenthal, Gustav. 177-93; 197-30.
Lindley, W. H. 300-2.
Lindsay, Samuel McCune. 223-58, 59; 298-39.
Lindsley, A. V. S. 170-32.
Linton, Harvey. 11-12.
Lippold, H. 148-34.
Little, Archibald. 131-23; 221-15.
Little, J. T., Jr. 168-88.
Little, W. 127-46.
Littlejohn, Harvey. 9-78; 254-100.
Livache, Ach. 83-63a.
Livesey, George. 122-94.
Lloyd, Caro. 277-20.
Lloyd, Robert McA. 266-45.
Lobingier, Charles S. 205-81.
Loch, C. S. 44-18; 51-56; 99-55; 101-17; 132-69; 272-80; 277-30.
Locke, Franklin B. 93-56a.
Lodge, Henry Cabot. 28-26; 184-52.
Loeb, Morris. 56-43.
Loening, Edgar. 2-10; 36-41; 41-34a; 85-96; 89-97; 227-40.
Loew, Emil. 237-75.
Loewenstein, Franz. 17-71.
Loftie, William J. 128-63; 134-28.
Logan, Charles T. 15-8; 51-75; 226-11; 237-83.
Lollée, F. 209-72.
Lomas, Harold. 25-56; 287-53.
Lombroso, Cesare. 298-41.
Longstaff, G. B. 36-42; 285-16.
Lonsdale, Sophia. 277-37.
Loomis, Frank M. 34-82; 158-35; 217-96.
Loomis, S. L. 51-61.
Lopez, Charles A. 176-77.
Lord, James Brown. 176-74.
Loring, Charles M. 13-64; 258-95.
Loring, Florence Burton. 215-38.
Lossing, Benson J. 10-99; 184-55; 185-71; 291-80.
Love, Charles H. 132-52.
Lovegrove, James. 257-51.
Low, A. Maurice. 301-8.
Low, Seth. 4-64, 74, 75; 7-38; 9-73; 43-6;

52-83; 98-34; 289-20; 290-38.
Low, Sidney J. 282-50.
Low, William G. 8-62; 177-100.
Lowcock, Sidney R. 251-32.
Lowell, A. L. 259-15.
Lowell, Francis C. 26-66; 27-91.
Lowell, Josephine Shaw (Mrs. C. R.). 44-24; 51-53; 176-66; 198-50; 227-58; 272-89; 296-4.
Lowles, John. 135-48.
Lowrie, Charles N. 216-58.
Lowrie, Sarah D. 223-56.
Löwry, Wilhelm. 299-71.
Lubbock, Gertrude. 44-34; 245-9.
Lubbock, John. 130-96; 145-58; 146-69.
Lucas, Ach. 78-43.
Lucas, Charles. 80-97.
Luchini, Odoardo. 110-26.
Lucipia, Louis. 78-51.
Ludlow, William. 96-3.
Ludwig, Charles V. F. 304-88.
Ludwig-Wolf, L. F. 87-39.
Lugilde y Huerta, M. 148-26.
Lukomski, T. 36-40.
Luks, W. 87-47.
Luloslawski, M. 236-69.
Lumley, W. G. 133-79.
Lundie, John. 269-6.
Lusk, H. H. 66-2.
Luten, Daniel B. 114-9; 219-58, 60; 220-67, 88.
Lymington, Viscount. 100-87.
Lynch, William. 281-20.
Lynch, William A. 161-21.
Lynn, John R. 121-72; 122-6.

M

Mabie, H. W. 260-35.
McAdoo, M. R. 263-92.
McAneny, George. 180-49.
McBriar, R. A. 125-99.
McBride, M. M. 179-33.
Macbride, Robt. J. 63-27; 115-34.
McCallum, Alexander. 296-83.
McCallum, M. 42-63; 277-36.
M'Cannel, W. J. 83-63a.
McCardy, J. J. 239-27.
McClintock, Charles T. 240-57.
McClintock, John N. 252-58; 253-89.
McClintock, Oliver. 226-10.
McClung, Hester M. 109-95.
McColl, Donald. 91-24.
McComb, D. E. 302-34.
McConachie, L. G. 66-100.
McConnell, John H. 155-94.
McCook, J. J. 65-67, 68; 96-1; 273-12.
McCormack, Ira A. 263-89; 270-32.
McCormick, Cyrus H. 214-18.
McCormick, S. D. 188-51.
McCracken, W. D. 61-96; 231-43.
McCullough, Ernest. 221-97.
McCullough, Richard. 263-93.
McDermot, George. 104-4, 94; 274-49.
McDermott, Edward J. 112-70; 147-97.
Macdonald, C. R. 246-22.
McDonald, Donald. 55-30.
MacDonald, J. 113-96.
MacDonald, J. A. 24-26; 272-85.
Macdonald, J. R. 186-14.
Macdonald, William. 277-15.
McDonald, W. 148-31.
Macdonnell, J. 278-53.
McDonough, John T. 200-96.
McDougal, H. C. 295-75.
Macé, G. 210-16.
Mace, Mrs. 141-73.
McElroy, Samuel. 304-77; 309-15.
McFarland, S. C. 204-54.
McFarland, W. A. 264-100.
McFarlane,——. 91-26.
McGann, L. E. 47-77.
McGinley, A. A. 51-70.
Macgowan, D. B. 23-96.
McGrady, Lord Provost. 62-13.
MacGregor, George. 91-27.
MacGregor, H. P. 269-20.
McGuinness, ——. 161-13.
McGuinness, Edwin D. 232-75.
McGuire, ——. 159-63.
McGuire, James K. 104-89; 157-29; 169-11.
MacHarg, Martin. 10-2.
McIlhenny, John D. 123-28.
Mackay, ——. 273-34.
Mackay, H. C. 268-97.
Mackay, Thomas. 277-28.
McKellar, P. D. 252-58.
McKelway, St. Clair. 7-30; 217-87.
McKenzie, Anna. 108-93.
Mackenzie, Constance. 215-36.
Mackenzie, F. G. 126-12.
Mackenzie, J. J. 241-93.
McKenzie, T. H. 306-29.
McKeough, G. T. 246-19.
McKinley, A. E. 184-58.
McKisson, Robert E. 53-7; 158-59; 159-67.
M'Laren, J. 123-44.
McLaughlin, J. Fairfax. 194-88.
McLaurin, Donald D. 59-77.
MacLean, Annie Marion. 59-74; 107-79.
McLean, F. W. 73-34.
McLean, Fannie W. 107-65; 240-51.
McLean, George. 158-44.
McLean, S. J. 248-62.
McLoughlin, W. P. 187-29.
McMaster, John Bach. 292-34.
McMaster, R. Bach. 202-34.
McMath, Robert E. 98-34; 237-93; 251-46.
MacMorran, A. 275-69.
McMurray, T. S. 159-71.
Macnamara, T. J. 141-72.
M'Neel-Caird, Alexander. 276-14.
Macomber, J. K. 7-38.
Maconnachie, George. 282-47.
McTaggart, John. 32-27, 28.
MacVeagh, Franklin. 8-50; 46-61; 217-79.
McVeagh, Wayne. 224-78.
McVey, Frank L. 155-95.
MacVicar, John. 160-93, 99; 161-16; 163-51; 164-97; 165-7; 159-63.
M'Walter, J. C. 124-64.
Macy, Jesse. 85-89.
Madox, Thomas. 280-17.
Madden, M. B. 218-25.
Magee, Louis J. 90-11.
Maggiore-Perin, ——. 206-95.
Magie, B. C. 291-80.
Mahaim, Ernest. 19-14.
Mahany, Rowland B. 34-83a.
Maier, J. 119-30.

Maignen, P. J. A. 225-3.
Mailler-Kendall, Theo. 252-57.
Maissoneuve, S. 118-96.
Maitland, Frederic William. 38-87; 277-18; 280-9, 14.
Malachowski, Herm. 21-56.
Mallock, M. M. 234-4.
Malochee, H. J. 158-37.
Malone, James H. 153-38.
Maltbie, Milo Roy. 49-28; 82-60; 93-47; 131-23; 146-69; 164-78; 165-4; 167-71; 181-87; 225-3; 275-71, 81; 283-68; 294-96; 298-18.
Malzac, Miranda. 80-15, 16.
Mancini, I. 37-56.
Manega, Rudolf. 102-43.
Manfrin, Pietro. 109-9.
Mangenot, ——. 209-77.
Mangini, F. 147-10.
Manley, Henry. 31-2.
Mann, Wilbur E. 204-69.
Manning, H. E. C. 275-67.
Manning, Helen L. 80-78.
Manning, Warren H. 214-2.
Mansergh, James. 252-58; 288-89; 303-53; 309-15, 97; 310-20.
Mansfield, Howard. 205-80.
Manson, George I. 183-16.
Manson, Marsden. 308-85.
Mantova, G. 109-15.
Manville, E. 12-44.
March, H. J. 219-60.
Marble, A. P. 244-71.
Marburg, Edgar. 225-3.
Marechal, Henri. 124-77.
Maréchal, M. 209-95.
Marie, A. 208-36.
Marie, J. 73-50.
Marjolin, ——. 105-20.
Marks, Henry C. 39-14.
Markus, A. 16-56.
Marpaux, A. 60-86, 87; 81-89.
Marquardsen, Heinrich. 2-9; 18-96; 85-2; 86-18; 98-23; 255-23.
Marriott, W. T. 24-24.
Marrucci, C. 235-37.
Marryat, R. 242-10.
Marshall, Alfred. 135-42.
Marshall, Cloyd. 264-11.
Marshall, Edward. 137-84; 182-12; 187-21, 30.
Marshall, Matthew. 72-15; 159-72.
Marson, C. L. 44-11.
Marston, A. 252-58.
Martel, J. 72-19.
Martin, Arthur J. 249-84; 250-9; 253-79.
Martin, E. S. 180-59.
Martin, F. 37-65.
Martin, Henry. 22-90.
Martin, J. W. 137-99; 162-42; 246-29.
Martin, Rufus. 287-66.
Martin, William R. 5-89; 182-91.
Martinelli, Mass. 109-5.
Martyn, Carlos. 50-45.
Mascher, H. A. 9-80.
Maskery, ——. 253-86.
Mason, August Lynch. 161-25.
Mason, Charles. 84-75.
Mason, Edward G. 46-60.
Mason, Frank H. 82-53; 87-33; 113-88; 254-99; 304-81.
Mason, H. W. 38-80.
Mason, T. 137-4.
Mason, William P. 303-50; 304-87; 307-42, 43; 308-65, 74, 76; 310-18.
Mataja, Victor. 272-1; 273-32.
Mather, F. G. 65-77.
Mathews, J. Douglass. 102-26.
Mathews, Robert. 4-59.
Mathieu, A. 258-86.
Mattersdorff, W. 263-96.
Matteson, Andre. 9-69.
Matthews, Franklin. 50-37; 174-28; 190-8; 191-13, 24; 194-85.
Matthews, J. M. 185-88.
Matthews, Nathan, Jr. 26-82; 165-2.
Matthews, William. 288-91.
Matthiews, A. F. 189-78.
Mauran, John Lawrence. 237-84.
Mauri, Aug. 154-66.
Mauriac, Jean E. 26-63.
Maury, Dabney H. 67-25; 222-31; 303-67.
Maury, Dabney H., Jr. 307-58.
Mawson, Harry P. 100-88; 225-1.
Maxon, J. H. 117-60.
Maxon, W. D. 50-46.
Maxwell, Wm. H. 83-69; 84-72, 74; 192-44; 243-31; 250-11; 258-98; 285-43.
May, J. 9-85.
May, Max. 96-7; 103-69.
May, Max B. 52-79, 80.
May, O. 118-84.
Mayer, Julius M. 178-8; 188-45.
Mayo, Earl W. 197-30.
Mayor, L. 272-76.
Mayo-Smith, Richmond. 76-9, 10, 11, 13; 230-15.
Mazzocolo, Enrico. 109-10.
Mead, Daniel W. 305-9.
Mead, E. D. 5-85; 12-51; 237-73.
Mead, Mrs. Edwin D. 13-66.
Mead, Morris W. 165-12.
Mead, Whitefield. 51-62.
Meade, Charles A. 193-73.
Meade-King, W. O. F. 288-86.
Meade, Thomas De Courcy. 68-42; 101-4.
Means, D. M. 64-41; 73-38; 113-89; 228-86; 272-2.
Mearns, Andrew. 132-71.
Meason, M. L. 139-45.
Meath, Earl of. 129-86; 139-32, 34; 213-71.
Mechelin, L. 236-59.
Meehan, Joseph. 139-35.
Meeker, Claude. 32-31.
Meikle, William. 92-37.
Meiklejon, M. J. C. 135-39.
Meissner, Alois. 82-50; 103-65; 170-28.
Meissner, Gustav. 204-59.
Melendy, R. L. 48-3.
Mellen, Chase. 176-64.
Mendlik, A. 120-56.
Menger, ——. 14-1a.
Mercer, George Gluyas. 223-54.
Meredith, Ellis. 59-70.
Mereu, H. 206-93.
Merewether, H. A. 280-19.
Meriwether, C. 301-3.
Meriwether, Lee. 159-73; 162-38; 165-99; 167-67.
Merk, Aug. 312-91.

Merling, A. 118-88.
Merriam, John M. 27-5.
Merriam, Lucius S. 170-29.
Merriman, Mansfield. 241-68.
Merry, Andrew. 107-78.
Merwin, Henry C. 194-85.
Mesa E. 255-28.
Meunier, Stanlias. 212-61.
Meuriot, Paul. 228-87.
Meyer, E. 89-86.
Meyer, F. Andreas. 95-83, 87.
Meyer, Georg. 85-99; 213-69; 214-19.
Meyer, Louis F. 251-51.
Meyers, W. J. 48-1.
Michel, Georges. 272-87.
Micheli, Horace. 260-20.
Michie, T. J. 5-4.
Middleton, Reginald E. 146-69; 146-71; 306-25; 308-73.
Mikkleson, Michael A. 48-1; 298-32.
Miller, Alice. 48-18.
Miller, C. O. G. 121-67.
Miller, Geo. W. 181-70.
Miller, John. 184-53.
Miller, Joseph A. 232-73.
Miller, Joseph D. 98-34.
Miller, Kempster B. 260-37; 261-38.
Miller, O. T. 37-55.
Miller, Thomas D. 122-9; 261-43.
Miller, Warner. 126-24.
Milliken, Isaac T. 239-17.
Milliken, O. J. 48-15.
Millin, G. F. 143-27.
Millington, F. H. 99-59.
Mills, C. 181-79; 218-24.
Mills, F. J. 239-38.
Mills, Hiram F. 251-33; 309-91.
Milne, Peter. 198-53, 58.
Milner, Alfred. 247-68.
Milner, Willis J. 308-68.
Minett, R. 275-66.
Minot, Lawrence. 30-89.
Minot, Wm., Jr. 73-43.
Minshall, F. H. 58-62; 125-88.
Miotat, Eug. 211-29.
Miriel, Emile. 81-21.
Mischler, Ernst. 14-1.
Mitchell, Cornelius B. 253-95.
Mitchell, F. H. 243-45.
Mitchell, S. A. 252-58.
Mitton, G. E. 144-42.
Moeller, ——. 231-59.
Moffat, George. 269-7.
Moffat, W. 103-80.
Moffett, S. E. 4-65; 26-68; 231-47.
Mohun, E. 298-48.
Moireau, Auguste. 181-73.
Moireau, M. A. 81-37.
Moise, Charles. 210-96.
Molitor, David. 291-63.
Molla, Pa. 109-99.
Monkswell, Lord. 143-20; 281-41.
Monod, Henri. 78-49a; 285-29.
Monroe, Charles E. 311-44.
Monroe, H. L. 119-27.
Monroe, Paul. 271-61.
Monstier, J. 13-82.
Montague, F. C. 193-62; 247-67; 275-73.
Montemartini, Giovanni. 110-37.
Montgomery, Caroline Williamson. 247-40.
Montpelier, J. A. 262-70.
Moody, Frank T. 155-94.
Moor, C. G. 305-7.
Moore, C. E. 308-82.
Moore, Chas. J. 60-80, 82; 153-45.
Moore, Clarence S. 168-88.
Moore, Dorothea. 48-18.
Moore, E. C. 48-3; 126-21.
Moore, E. C. S. 241-72.
Moore, F. W. 91-29.
Moore, H. E. 228-68; 272-77.
Moore, Helen. 107-65; 248-65.
Moore, M. I. 105-12; 241-86.
Moore, Robert. 68-36; 237-86, 91, 93.
Moore, Thomas Ewing. 148-29.
Moran, F. J. C. 114-2.
Mordecai, Augustus. 93-55.
Morgan, Edwin V. 185-92.
Morgan, J. 253-33.
Morgan, R. M. 178-12.
Morgan-Brown, H. 281-38.
Morgand, Léon. 77-30.
Morgensen, Peter. 73-27.
Morgenstern, Lina. 112-74.
Morier, R. B. D. 275-72.
Morison, Frank. 2-26.
Morris, Charles. 223-47.
Morris, Moreau. 17-73, 82; 18-83; 177-83.
Morris, William O'Connor. 274-49.
Morrison, W. R. 251-57.
Morse, Allen B. 91-30; 92-39.
Morse, A. D. 218-10.
Morse, Francis R. 41-59; 45-43.
Morse, W. F. 83-63a, 70; 84-80, 81.
Morss, Samuel E. 209-73.
Morton, Henry. 117-54.
Moses, B. 239-41.
Moss, Frank. 174-15; 184-36; 191-26; 227-44, 48.
Moss, Isaac. 186-13.
Mossa, Pietro. 109-11.
Moulton, J. Fletcher. 74-53; 279-74.
Mount, May Wilkinson. 173-10; 179-45.
Mountain, A. B. 167-61; 261-39; 284-95.
Mowry, Arthur M. 194-85.
Mowry, Duane. 155-76.
Mueller, Eugen. 232-68.
Mueller, O. N., Jr. 34-73.
Mühlke, C. 235-45.
Muirhead, James. 276-10; 285-13.
Muldaur, George B. 235-26.
Mulhall, M. G. 135-42.
Mullen, Ben H. 238-9.
Muller, ——. 156-9.
Müller, Alex. 253-37.
Muller, Emile. 102-39.
Mumford, Mary E. 8-63a; 224-33; 245-35; 311-53.
Munce, James. 18-91.
Munro, John. 146-69.
Munsell, Joel. 10-100.
Münsterberg, E. 94-77; 273-13.
Münsterberg, Th. 42-75.
Mure, W. J. 276-11.
Murlin, Edgar L. 180-64.
Murphy, Geo. H. 21-75.
Murphy, Shirley. 242-25.
Murphy, Walter. 222-20.

Murray, G. H. 279-76.
Muzzey, A. L. 43-18.
Myers, Cortland. 43-2.
Myers, Gustavus. 189-73, 75.

N

Nachtsheim, A. 267-78.
Nadal, E. S. 174-21; 176-70; 189-78; 198-42.
Napias, Henri. 207-38.
Narjoux, Félix. 207-18.
Nash, H. S. 51-66.
Nash, Vaughan. 145-62.
Nathan, Paul. 21-58.
Naville, E. 231-41.
Neal, Jane E. 127-38.
Negro, Luigi. 163-59.
Nelson, Henry Loomis. 290-53.
Nérincx, Alfred. 21-61.
Neumann, F. J. 87-45; 88-56, 60.
Newall, W. 130-98; 131-20.
Newbaker, C. A. 67-12.
Newberry, J. S. 190-4.
Newbigging, Thomas. 120-60; 121-89; 122-17; 283-67.
Newbigging, William. 124-56.
Newcomb, S. 301-3.
Newell, Wm. H. 105-11; 241-84.
Newland, F. W. 149-41.
Newman, A. S. 37-55.
Newsholme, Albert. 242-26.
Newton, T. M. 216-54.
Newton, Virginius. 234-17.
Nicholl, T. J. 219-35.
Nichols, George. 277-28.
Nichols, H. Bertram. 115-25.
Nichols, O. F. 195-3; 196-14.
Nichols, Wm. I. 3-37.
Nichols, William Ripley. 308-77.
Nicholson, C. N. 278-41.
Nicholson, W. 254-2.
Nicol, James. 92-41.
Nicolson, J. B. 276-11.
Nielly, ——. 207-23.
Niven, James. 149-44.
Nixon, S. Frederick. 202-26.
Noack, Fr. 205-73.
Noble, Andrew. 241-69.
Noble, John. 279-91.
Nöll, F. 87-46.
Norden, Hans. 299-57.
Nordhoff, Charles. 174-24.
Norris, H. M. 264-9.
North, E. P. 218-31; 221-93; 258-81.
North, F. M. 43-4.
Northcote, A. S. 65-66.
Northrop, B. G. 300-97.
Norton, C. E. 28-31.
Norton, George. 128-62.
Norton, Lord. 132-55.
Nott, C. C. 176-59; 301-3.
Nourse, Henry S. 151-90.
Novy, F. G. 24-57.
Nowroji, Hormusji. 19-19.
Noyes, Albert F. 31-22.
Nunn, T. H. 141-81, 87.
Nye, A. B. 33-78.

O

Oberbreyer, ——. 115-32.
Oberholtzer, Ellis P. 61-99; 98-36, 38; 291-61.
Oberholtzer, Sara Louisa. 246-24.
O'Brien, Edward C. 192-35.
Obrist, H. 13-76.
O'Callaghan, Edw. B. 186-98; 201-16, 19.
Ochs, George W. 46-56; 159-63.
O'Connell, Daniel. 240-55.
O'Conor, Charles. 198-43.
Odell, F. S. 153-39.
Odgers, William Blake. 275-64.
Odling, William. 304-93.
Oertel, O. 36-8.
Ogden, R. 160-88.
Ogden, William J. 15-16.
Ogle, W. 285-15.
Oldenberg, ——. 273-7.
Oldham, Edward A. 84-78.
Oldrini, A. 109-1.
Olin, Stephen H. 192-44.
Oliphant, F. H. 123-31.
Olive, Wm. Thomas. 149-53.
Olmsted, Frederick Law, Jr. 10-94; 29-58; 34-91; 190-85; 213-75; 215-43; 301-11.
Olmsted, John C. 215-25.
O'Meara, J. J. 73-44.
O'Neil, Thos. B. 256-43.
O'Neill, Henry. 152-28.
Onslow, A. W. 122-12.
Oosterbaan, G. 103-71.
Opet, O. 90-10.
Oppenheimer, F. 88-72.
Ordway, John M. 173-8.
Orr, Alexander. 197-30.
Orth, A. Leipzig. 256-43.
Orton, Edward, Jr. 220-68, 71.
Osborn, C. 105-31.
Osborn, H. V. B. 223-50.
Osgood, Fletcher. 31-22.
O'Shaughnessy, Richard. 274-53.
Ostrander, Dempster, 161-15.
Ostrander, S. M. 184-47.
Owen, Douglas. 134-26.
Owen, James. 205-90; 221-95; 247-84; 269-25.
Owens, R. R. 68-31.

P

Pagés, ——. 298-42.
Paige, J. D. 75-85, 90.
Paine, Robert Treat. 44-27; 100-80.
Paisley, A. Gardner. 100-66.
Paley, W. B. 144-30.
Palgrave, R. H. Inglis. 1-2; 16-50; 18-94a; 61-93; 73-44; 77-38; 80-13; 86-12; 97-8a, 11a, 11b; 104-86; 135-31; 228-70; 260-19; 279-85; 279-94; 280-13, 18.
Palmberg, Albert. 242-26.
Palmer, Arthur W. 308-84.
Palmer, Clarence S. 98-34.
Palmer, Emerson. 174-28.
Palmer, O. M. 190-5.
Panizza, Mario. 111-46.
Parent-Duchatelet, A. J. B. 210-21.
Parey, Karl. 20-32.
Parke, Roderick J. 160-93.
Parker, F. R. 278-60.
Parker, Francis J. 151-83.
Parker, G. A. 213-82.
Parker, Geo. F. 24-28.
Parker, J. 136-73.

Parker, R. D. 14-93.
Parker, William. 173-13.
Parkes, E. 9-82.
Parkhurst, Charles H. 6-9; 7-33; 174-21; 176-63; 191-24; 194-89.
Parkhurst, Henry L. 13-78.
Parmley, W. C. 251-26, 39.
Parry, W. Kaye. 251-32; 307-43.
Parshall, H. F. 92-45; 264-11.
Parsons, Frank. 53-96; 54-15; 60-87a; 63-31; 64-53; 98-34, 35; 159-82; 160-97; 161-14; 162-37; 164-93; 167-60, 68, 72; 168-82, 88; 231-40, 46; 262-65; 264-8.
Parsons, George Frederick. 126-19.
Parsons, H. de B. 76-96.
Parsons, James. 104-96.
Parsons, Samuel, Jr. 172-75; 215-35; 216-55.
Parsons, William Barclay. 16-43; 22-94; 50-29; 55-28; 93-49; 127-43; 144-35; 196-15, 18; 197-30, 38; 212-54; 295-78.
Parton, James. 3-30; 57-48; 152-23; 174-21; 198-44; 217-8.
Partridge, Newton A. 46-72; 50-32.
Partridge, William Ordway. 213-88.
Pascaud, Henri. 4-70a.
Pascoe, C. E. 130-96.
Pasquet, D. 129-90; 142-1.
Pasquier, Lucien. 79-74.
Pater, Joseph J. 305-98.
Paterno, P. A. 225-6.
Paton, James. 91-18; 162-38.
Patten, Simon N. 289-16; 291-68.
Patterson, C. Stuart. 52-88.
Patterson, S. A. 294-39.
Patterson, W. R. 210-14; 221-13.
Pattison, F. A. 35-18.
Patton, W. B. 62-16.
Paul-Dubois, L. 70-67; 79-81; 88-66; 280-16.
Paullian, Louis. 207-27.
Pavey, Frank D. 66-7; 174-21; 190-2; 217-6.
Payne, W. H. C. 146-75.
Peabody, Andrew P. 75-80.
Peabody, Francis G. 42-70; 43-94; 43-5; 61-3.
Pearmain, Alice Upton. 29-74.
Pearmain, T. H. 305-7.
Pearson, Chas. H. 227-54.
Pearson, F. S. 265-17.
Pease, Edward R. 126-14.
Pease, J. G. 276-8.
Pease, T. H. 53-99.
Peck, F. 133-83.
Peck, Hiram D. 204-61.
Peckham, S. F. 219-44, 52.
Peckham, Wheeler H. 175-35.
Peek, Francis. 243-47.
Peek, R. H. 82-63.
Peeters, L. J. 18-99.
Pegna, Mario. 110-26.
Pelatant, Leopold. 81-22.
Pell, Albert. 73-36; 275-78.
Pellissier, Georges. 117-73.
Pennell, E. R. 130-96; 138-22, 24; 144-42.
Penniman, Jas. H. 245-87.
Penn-Lewis, W. 288-82.
Penrose, Boies. 223-54, 64; 224-68.
Pensa, Henri. 113-93.
Percy, G. W. 220-74.
Pere, Johann. 300-85.
Pérès, H. 260-34.
Périn, J. 36-40.
Perkins, F. B. 263-95.
Perkins, Thomas C. 300-100.
Perrine, F. A. C. 166-37; 248-61.
Perry, George R. 113-82, 83; 126-18.
Perry, J. Roy. 39-98.
Perry, Nelson W. 84-82; 120-42, 43; 264-11.
Persinger, Clark Edmund. 163-73.
Persse, T. B. 165-3.
Pesci, Ugo. 110-29.
Petch, Thos. D. 124-48.
Petrie, George. 156-1.
Petrovsky, A. G. 156-4.
Petsch, A. 221-99.
Pettigrew, J. A. 215-23.
Petty, William. 62-12; 135-30.
Peuch, A. 304-85.
Pey, J. B. 73-26.
Peytoureau, ——. 26-62.
Pfalz, F. 88-64.
Pfeffer, Walter. 255-29.
Pfingsthorn, Carl. 95-81.
Phelan, James D. 37-76; 38-83; 167-62; 239-29; 240-46.
Phelphs, L. R. 277-29.
Phelps, Charles E., Jr. 15-26.
Phelps, E. J. 46-72; 194-85.
Philbrick, John D. 294-49.
Phillimore, R. C. 135-49.
Phillips, Alfred E. 253-73.
Phillips, Asa E. 250-17.
Phillips, Barnet. 179-33; 198-53; 310-31.
Phillips, Ernest. 114-10.
Phillips, Geo. I. 287-59.
Phillips, H. A. 35-98.
Phillips, Hiram. 49-22.
Phillips, J. Roland. 279-93.
Phillips, Samuel. 172-79.
Pickard, C. E. 3-35; 228-77.
Pickard, J. L. 245-91.
Pickard, Samuel T. 230-17.
Pickering, J. S. 258-79.
Picot, Georges. 102-47; 209-73, 74.
Picton, J. A. 3-30; 276-94; 281-25.
Piequet, O. 236-56.
Pierce, Frank G. 161-16, 20; 166-39; 169-98.
Pierce, Frederick E. 187-27.
Pierce, Walter S. 83-63a.
Pierce, William T. 29-59.
Pierro, Luigi. 109-12.
Pierson, G. S. 252-54.
Pignant, P. 241-83.
Pilon, E. 80-9.
Pincus, Henry. 213-83; 214-1; 216-67.
Pine, John B. 185-76.
Pingree, H. S. 7-32; 59-76; 158-41; 160-93; 162-44; 167-63, 72; 298-33; 305-2.
Pini, G. 110-22.
Pitcairn, Hugh. 95-86.
Plehn, Carl Copping. 38-81, 81a; 71-99.
Plumb, F. 220-65.
Plummer, John. 14-96.
Pogson, J. 107-81.
Pöhlmann, R. 227-55.
Poindexter, Philip. 174-28.
Pokrovskaya, M. J. 104-97.
Polk, Jefferson F. 92-84.
Pomeroy, Eltweed. 61-90, 91, 95, 97, 98; 173-92; 288-99.

SITY
CALIFORNIA

Ponsonby, E. 274-50.
Pooley, H. 121-77.
Poore, George Vivian. 100-68; 149-59; 242-13.
Pope, Franklin L. 125-96.
Poppenberg, Felix. 23-97.
Poppleton, William S. 267-64.
Porritt, Edward. 24-25; 26-70; 135-42; 137-90; 176-59; 181-78; 273-48; 274-36; 276-90; 283-77; 285-32; 287-73; 289-18.
Portal, Ethel M. 141-74.
Portalupi, Massimo. 161-27.
Porter, C. 308-66.
Porter, Dwight. 28-34; 68-36.
Porter, H. J. 221-6.
Porter, John Addison. 301-17; 302-37.
Porter, Robert P. 4-55; 32-30; 40-20; 70-78; 72-6, 8; 92-35; 119-9; 161-11, 17; 164-87; 276-99; 284-4; 291-78.
Post, Geo. B. 258-81.
Post, James A. 59-79.
Potter, Alexander. 242-1.
Potter, B. 113-109; 114-3.
Potter, E. T. 187-21; 228-59.
Potter, F. D. 193-68.
Potter, Henry C. 141-81.
Potter, Henry Ingle. 100-72.
Potter, W. B. 266-51.
Potter, William. 224-78.
Potts, Alfred F. 162-41.
Powell, Gregory J. 205-76.
Powell, Lyman P. 1-3; 292-83.
Powell, R. F. 297-10.
Powers, Samuel L. 168-85.
Praft, J. W. 246-34.
Pratt, Mason D. 269-11.
Pray, W. L. 153-43.
Preece, Arthur H. 138-9.
Prendergast, Moret Y. 255-18.
Prentiss, John. 53-99.
Prescott, A. Ernest. 61-1.
Press, John. 52-84.
Pressly, Neill E. 260-33.
Preston, S. O. 172-63; 272-93.
Preston, W. C. 132-56.
Presutti, E. 109-4.
Preuss, Hugo. 90-6.
Price, E. C. 207-28.
Prichard, Frank P. 5-84.
Priestley, Joseph. 101-24; 243-32; 249-95.
Priestman, Arthur. 164-80.
Prince, Walter. 8-42; 172-68.
Prindle, H. B. 264-11.
Probst, C. O. 246-58; 308-89.
Probst; Friederick. 14-1b.
Probyn, J. W. 4-57; 77-36; 86-11; 98-26; 130-1; 203-40; 255-18; 274-42, 52, 53; 275-72, 74, 75, 79; 276-85, 14, 15; 279-93.
Prothers, R. E. 129-74.
Prudden, T. Mitchell. 294-45.
Pruyn, Francis L. 199-64.
Pryor, James W. 57-55; 174-29; 181-76; 197-30; 206-94.
Puffer, F. E. 219-55.
Pugh, David F. 204-64.
Puibarand, Louis. 79-80; 279-81.
Pullen, Clarence. 23-59; 48-5.
Pullman, J. M. 44-13.
Pumpelly, J. C. 193-75; 257-69.
Purcell, Thomas P. 75-78.
Purdon, K. F. 94-76.
Purdy, Lawson. 73-35.
Purroy, H. D. 75-77.
Putnam, Elizabeth C. 41-50; 227-34.
Putnam, Harrington. 184-46,48.
Putnam, Herbert. 116-39.
Putnam, Ruth. 184-38.
Putzeys, E. 105-10.
Putzeys, F. 105-10.

Q

Quade, J. C. 112-72a.
Quick, J. H. 74-67.
Quilty, C. W. 161-9.
Quinby, Isaac N. 111-59.
Quincy, Josiah. 6-15; 17-61; 26-85; 27-90; 28-46; 29-53; 63-33; 94-67; 215-41; 289-17.

R

Rabbeno, Ugo. 273-27.
Rabot, M. E. 211-37.
Racine, ——. 262-69.
Raddin, Charles S. 49-22.
Rae, John. 74-60, 63.
Raemelin, C. 3-29.
Raffalovich, Arthur. 21-71; 33-54; 80-96; 102-50.
Rafter, George W. 111-61; 295-59.
Ragan, H. H. 98-25; 206-8.
Ragsdale, James W. 261-48.
Raine, James. 312-77.
Raines, J. 188-62.
Ralph, Julian. 24-21; 34-83; 46-66a, 72; 47-81; 53-98, 5; 62-15; 155-87, 96; 172-89; 177-98; 179-36; 180-49; 237-80; 238-97; 289-18; 301-7.
Ralston, W. R. S. 210-12.
Ramage, B. J. 255-11.
Ramalho, A. 80-91; 97-8.
Ramirez, D. B. Anton. 255-27.
Randall, C. D. 41-57.
Randall, E. O. 116-43.
Randall, John E. 119-28.
Randolph, Isham. 49-22.
Rankin, Norman S. 85-94.
Raper, G. A. 210-5.
Rathbone, William, Jr. 275-76; 279-81
Rathowski, Math. G. 102-35.
Ratzel, Frederich. 229-8.
Rau, Albert. 86-22.
Rauch, John H. 48-6.
Rauchberg, Heinrich. 14-3a; 228-95
Rawlinson, R. 99-56; 141-88; 242-90
Raworth, J. S. 253-82.
Raworth, John. 157-28.
Raynor, C. H. 123-28.
Read, R. 253-88.
Reaney, G. S. 132-74.
Reason, W. 248-75.
Rebeillard, E. R. 207-35.
Reber, B. 37-64.
Réclus, E. 97-10.
Record, Geo. L. 66-97, 98.
Redmond, John M. 158-38.
Reed, Andrew. 285-12.
Reed, Charles Wesley. 161-19; [illegible]-47.
Reed, Lyman C. 173-5.
Reed, W. B. 196-10.
Rees, William. 279-68.
Reeve, Fred'k C. 120-44.
Reich, Eduard. 231-52.

Reichardt, Erwin. 102-48.
Reichheim, E. P. 122-5.
Reid, G. A. 13-69.
Reid, George. 250-12, 16.
Reid, H. G. 100-66.
Reid, Sidney. 178-2; 191-24.
Rein, Carrie. 44-20.
Reinherz, H. 107-76.
Remsen, D. S. 66-10, 93.
Renck, ——. 232-62.
Rendu, Ambroise. 230-38; 252-69.
Reno, J. W. 196-19.
Renouard, Alfred. 72-19; 221-7.
Reque, Lars S. 236-51.
Reuss, L. 81-30.
Reviere, Louis. 296-9.
Reynolds, Arthur R. 83-63a.
Reynolds, James B. 181-73.
Reynolds, J. Emerson. 62-9.
Reynolds, Marcus T. 23-9a; 100-62; 104-87.
Ricardo, Halsey. 12-33, 60.
Rice, C. Spring. 87-42; 90-1a.
Rice, George S. 199-74.
Rice, Allen T. 64-65.
Rice, Arthur L. 125-87.
Rice, Geo. S. 31-3.
Rice, J. M. 15-33; 29-73; 34-92; 48-15; 52-82; 108-92; 155-92; 192-44; 224-88; 237-90; 238-1; 245-14; 294-47.
Rice, W. 116-48.
Richard, Emile. 210-20.
Richards, Ellen H. 240-56, 66.
Richards, H. C. 146-75.
Richards, R. W. 260-24.
Richards, William P. 302-43.
Richardson, A. C. 34-87.
Richardson, Benjamin W. 9-84; 241-80, 88; 242-2.
Richardson, Charles. 52-87; 65-76; 159-64; 167-72; 217-88, 89, 98; 223-55.
Richardson, Clifford. 219-51.
Richardson, F. W. 32-31.
Richardson, Hester D. 193-58.
Richie, James. 54-11.
Richmond, Mary E. 42-82; 45-50.
Rideal, Samuel. 249-84; 251-32, 37; 253-4; 307-47, 56.
Rider, Joseph B. 305-16.
Ridgely, Benjamin H. 85-92.
Riding, William H. 189-69.
Ridpath, J. C. 48-9.
Riedel, J. 216-67.
Riedel, J. B. 98-31.
Rietschel, S. 88-70.
Riggs, H. F. 243-35.
Righter, G. Emil. 188-48.
Riis, Jacob A. 41-45, 46; 44-31a; 75-92; 105-16; 105-26; 106-41; 106-56, 57; 107-62; 176-59; 179-35; 186-5, 11, 15, 16; 187-19, 21, 22, 28; 188-42; 189-71; 190-8; 216-51, 53; 245-13.
Riordan, R. 216-72.
Ripley, William Z. 157-30; 228-84; 229-4.
Ritchie, Ryerson. 6-18.
Ritson, T. N. 282-63.
Ritter, John P. 178-22.
Robb, William Lispenard. 125-84.
Robbins, Mary C. 15-28; 48-5; 155-91; 214-5; 232-81; 238-100; 300-97.
Roberts, E. P. 120-48.
Roberts, George J. 121-87.
Roberts, H. 99-51.
Roberts, J. 140-58.
Roberts, James A. 201-7.
Roberts, W. E. 75-89.
Roberts, W. H. 51-55.
Robertson, R. F. 215-31.
Robertson, W. B. 144-31.
Robertson, W. Henry. 95-85.
Robin, André. 103-63.
Robins, E. C. 241-89.
Robinson, B. Fletcher. 94-68; 130-14; 131-36; 299-64.
Robinson, Sir Charles. 13-71.
Robinson, Charles A. 298-36.
Robinson, Charles Mulford. 12-61; 43-95; 63-63-24; 246-16, 30.
Robinson, H. 252-64.
Robinson, Henry A. 262-71.
Robinson, John Beverly. 12-39; 36-45; 178-7; 192-46.
Robinson, J. Clifton. 143-26; 265-18; 295-47, 48.
Robinson, J. R. 160-93; 161-16; 164-81.
Robinson, Wm. 210-6.
Robinson, W. L. 36-51a.
Robiquet, Paul. 209-66.
Rochetin, Eugène. 272-84.
Rockwell, Alfred P. 211-42.
Rodriguez, Pedro. 221-2.
Rodwell, A. 112-71.
Roebuck, J. A. 276-96.
Roechling, H. Alfred. 250-15.
Roechling, Herman. 22-82.
Rogers, Emma Winner. 9-70.
Rogers, G. Tracy. 269-23.
Rogers, John I. 224-80.
Rogers, Platt. 59-69.
Rogers, W. H. 192-35.
Rohe, George M. 307-43.
Rohts, C. 36-50.
Rollins, A. W. 107-60; 187-21.
Rollitt, Albert. 233-85.
Römer, ——. 148-23.
Roome, W. Harris. 7-31; 66-6.
Roosevelt, George W. 19-6; 33-63, 66.
Roosevelt, Theodore. 42-73; 65-84; 72-13; 96-7a; 185-66; 189-67; 190-1, 8, 9; 191-18, 28, 29, 34; 216-77; 227-32; 289-5, 21.
Roscher, Wilhelm. 229-1.
Roscoe, H. E. 149-52.
Rose, George B. 126-26.
Rose, John C. 228-65.
Rosencrans, W. H. 269-18.
Rosewater, Andrew. 205-77; 249-92; 250-17; 295-71.
Rosewater, Victor. 74-72; 119-22; 165-13; 205-79.
Ross, Edward A. 161-19.
Ross, James H. 66-3.
Ross, R. 123-28; 305-19.
Rosselli, Carlo. 110-26.
Rossi, Egisto. 110-25.
Rossiter, C. L. 267-62.
Rostand, Eugène. 80-2; 81-36a; 103-75; 271-59.
Rostron, Laurence W. S. 133-17.
Rothery, Guy Cadogan. 94-67.
Rothery, S. E. 260-32.
Rouanet, Gustave. 208-46.
Rouillet, A. 103-54.

Rounds, F. D. 266-59.
Routledge, R. 113-92.
Rowe, C. E. 67-27.
Rowe, Leo S. 2-22; 4-63, 69; 5-82; 20-47; 31-5; 46-73; 71-81, 83, 84; 81-42; 91-22; 97-22; 135-47; 137-82; 158-40; 174-29; 179-38; 180-49; 189-63; 194-95; 197-30; 208-43; 224-80; 229-92; 245-95; 288-100; 290-35; 299-56.
Rowntree, Joseph. 283-79.
Royer de Dour, Hippolyte de. 19-8.
Rudall, J. H. 71-90a.
Ruffin, John N. 206-98.
Rühlmann, Richard. 221-16.
Rule, Lucien V. 147-98.
Rümelin, Gustav. 229-14.
Runkle, Mrs. C. A. 311-54.
Ruprecht, Wilh. 137-94.
Russel, Ernest E. 105-17.
Russell, C. P. 121-86.
Russell, Charles Theodore, Jr. 53-2; 113-81.
Russell, George W. E. 7-29a.
Russell, James B. 242-23.
Russell, S. Bent. 237-93.
Russell, T. W. 62-7; 183-17; 282-46.
Rust, Charles H. 221-94.
Ryan, Harris J. 266-43.

S

Sachs, Edwin O. 75-79, 82.
St. Clair, L. M. 112-72.
Saintsbury, George. 149-37.
Sainz y Gomez, Miguel. 255-13.
Salazar, Fanny Zampini. 110-24.
Salisbury, Marquis of. 100-83.
Salmon-Legagneur, Paul. 79-89.
Saloma, G. Ricca. 163-65.
Salomon, Georges. 78-45.
Salomons, Henry H. 11-17.
Salter, W. M. 158-46; 272-85.
Saltsman, ——. 161-18.
Samuels, Mrs. A. 42-66.
Sanborn, A. F. 27-12; 28-23, 30; 151-84; 209-83.
Sanborn, Frank B. 55-27.
Sanders, C. 42-74.
Sanders, Dallas. 222-26; 263-88.
Sanders, Sedgwick. 140-56.
Sanford, Mary B. 193-57.
Sanger, W. W. 191-31; 231-51.
Sanlaville, Ferd. 79-75.
Sanne, Oscar. 214-95.
Sarcey, Francisque. 212-48.
Sargant, Charles Henry. 74-52; 279-73, 79.
Sargent, C. S. 13-64.
Sargent, J. H. 54-11.
Sarles, W. T. 306-38.
Sarrey, Paul. 207-19; 236-54.
Saunders, William. 136-56; 129-76.
Saunders, William F. 66-3a.
Savage, E. B. 253-75.
Sax, E. 102-34; 229-9.
Say, Horace. 209-65.
Say, Léon, 2-12, 13; 70-64; 71-95; 72-19; 78-47; 79-76, 79; 81-29; 207-23.
Sayers, H. M. 285-50.
Schaar, G. F. 122-18.
Schaeffer, J. H. 67-14.
Schaeffer, Nathan C. 245-85.
Schafer, ——. 148-32.
Schall, M. 156-10.
Schanz, Georg. 271-67, 69, 71; 272-6.
Schäppi, J. 272-99.
Scharf, J. T. 15-19; 224-72.
Schartlin, G. 23-6a; 271-68.
Schasler, M. 104-83.
Schauck, John A. 98-39.
Schellen, H. 113-90; 119-33.
Scherer, H. P. 83-63a.
Scheven, H. 230-27.
Scheyven, ——. 19-2.
Schieren, Charles A. 7-31.
Schikowski, John. 272-5; 273-9.
Schilling, ——. 113-5.
Schilling, George A. 50-33.
Schilling, N. H. 122-20.
Schimpff, Gustav. 270-36.
Schindler, Huber. 271-72.
Schindler, K. 23-3.
Schirmer, Carl. 156-13.
Schlesinger-Eckstein, Therese. 232-69.
Schloss, D. F. 113-84; 114-2; 282-55.
Schmid, F. 259-17.
Schmidt, C. D. 271-47.
Schmidt, Emil G. 123-45.
Schmölder, ——. 232-67.
Schmölke, J. 102-44.
Schnadhorst, F. 278-51.
Schneider, A. 312-80.
Schneider, K. 89-87.
Schoenhof, J. 283-69.
Schönberg, Gustav. 1-8; 16-51; 70-60; 89-97, 100; 113-86; 245-92.
Schönfeldt, Gustav. 95-82.
Schönheyder, William. 305-20.
Schorrer, A. 271-69.
Schott, W. H. 119-16.
Schrader, A. C. 213-91.
Schrader, W. 165-17.
Schraub, Josef. 299-65.
Schuchardt, R. F. 307-59.
Schülke, Herm. 102-40; 104-3.
Schultz, A. 257-66.
Schulz, C. F. 54-14.
Schulze, G. A. 216-68.
Schurman, J. G. 44-15.
Schurz, Carl. 52-88, 90; 66-97; 68-29; 121-73; 190-10; 217-81, 95.
Schuyler, E. 236-65.
Schuyler, Louisa Lee. 200-91.
Schuyler, Montgomery. 32-43; 36-31; 178-17.
Schwab, John C. 182-2.
Schwanebach, P. 236-61.
Schwartz, J. C. 87-31.
Schwering, L. 156-8; 259-100.
Scidmore, Eliza Ruhamah. 221-14.
Scoble, H. T. 249-84.
Scott, Benjamin. 128-69; 130-96; 231-53.
Scott, F. M. 68-36.
Scott, H. Y. D. 141-88.
Scott, W. J. 144-44.
Scotter, R. H. 287-61.
Scudamore, Amy L. 177-82.
Scudder, V. D. 193-58; 247-57.
Seager, J. Renwick. 129-91; 278-54.
Seaman, Louis L. 9-72.
Searles, Wm. H. 68-28a.
Sears, E. I. 174-21; 198-42.

Seavey, Fanny Copley. 237-87.
Sedgwick, A. G. 64-38; 181-69; 216-76; 301-3.
Sedgwick, W. T. 306-34.
Sedlaczek, Stephan. 299-71.
See, Milton. 13-72.
Seeger, Ferdinand. 190-100.
Seeler, Edgar V. 301-12.
Seeley, J. R. 88-69.
Seestern-Pauly, ——. 82-56.
Seguin, E. 190-90.
Seidel, Max. 90-2.
Seligman, E. R. A. 73-31, 33; 74-54, 62; 162-38; 201-3.
Sellers, Edith. 14-1c, 3; 20-37.
Senckel, Ernst. 246-25.
Senner, Joseph H. 76-14.
Sergeant, Charles S. 268-92.
Serra, Gius. 109-6.
Serrell, Lemuel W. 265-14.
Sewall, Frank. 12-45.
Sewall, William L. 39-1.
Seward, Mary C. 311-56.
Sexby, J. J. 139-36.
Seyffardt, L. F. 42-75; 57-60.
Shadbolt, R. G. 124-49.
Shadwell, Arthur. 146-69, 73.
Shafer, Sara Andrew. 11-24; 82-58.
Shaftesbury, Earl of. 104-99.
Shaler, Nathaniel S. 290-33.
Shand, A. J. 139-45.
Shapely, Rufus E. 224-84.
Sharpe, Reginald R. 135-36.
Sharpless, Isaac. 24-27; 149-39.
Shaw, A. C. 62-14.
Shaw, Albert. 1-5, 6; 3-30, 40; 5-91; 8-47; 18-99a; 24-23; 33-71; 52-88; 85-95b; 91-17; 95-84; 104-89; 108-84; 110-20; 130-96; 130-18; 139-44; 149-38; 160-94; 162-38; 174-29; 175-50; 183-35; 206-2; 207-13; 237-79; 239-31; 261-60; 272-90; 276-90, 92, 93; 289-23; 290-54; 293-21; 299-79.
Shaw, C. G. 276-13.
Shaw, Henry. 151-82.
Shaw, W. B. 294-50, 53.
Shea, John Gilmary. 184-53.
Sheahan, J. W. 47-94.
Shearer, William J. 245-7.
Shearman, August. 291-76.
Shearman, Thomas G. 73-46; 291-75.
Shedd, J. H. 68-36.
Sheffield, James R. 182-7.
Sheible, Albert. 125-78.
Sheldon, George. 58-67.
Sheldon, Samuel. 181-82.
Sheldrake, J. H. 125-89.
Shelton, Frederick H. 121-81; 123-22, 32, 33; 292-2.
Shenton, Henry C. H. 285-43.
Shepard, Edward M. 53-91; 152-17; 175-51; 197-31.
Shepard, F. J. 34-80.
Shepard, H. N. 152-25.
Shepardson, G. D. 160-2; 166-40.
Sherman, Alma Seymour. 41-43.
Sherman, Rogers. 64-56.
Sherman, Thomas H. 127-31, 42.
Sherman, W. J. 82-62.
Sherrerd, Morris R. 306-36; 309-9.
Sherwell, Arthur. 146-84; 283-79.
Shields, W. S. 304-71.
Shinn, Charles H. 239-17.
Shinn, G. W. 37-56.
Shoolbred, J. N. 118-93.
Shorey, Daniel L. 46-65.
Short, Sidney H. 54-13; 171-61; 195-2; 266-53; 286-48.
Shuey, Edwin L. 104-85; 213-86.
Shumann, Andrew. 48-10.
Siddons, Frederick L. 301-5.
Siegfriedt, Thorwald A. A. 109-96.
Sikes, Geo. C. 50-31.
Silbergeist, H. 148-28.
Silberstein, L. 23-96a; 144-43.
Silvernail, W. H. 174-25; 200-97.
Silverthorne, Arthur. 284-98.
Simon, John. 285-22.
Simonds, O. C. 214-14; 216-59; 258-91.
Simonetti, Lu. 235-40.
Simons, A. M. 81-41.
Simpson, ——. 129-89.
Simpson, D. F. 155-88.
Simpson, J. Alexander, Jr. 74-68.
Simrall, H. F. 298-45.
Sims, George R. 136-54.
Sinclair, A. H. 160-89; 262-65.
Sinclair, Graham M. 251-51.
Sioussat, St. George L. 15-22.
Sipione, Corrado. 109-13.
Sisley, R. 146-74.
Sisto, Gius. 110-23.
Sites, Clement Moore Lacey. 125-1.
Sitta, Pietro. 110-42.
Sitte, C. 258-84.
Skeel, Adalaide. 171-46.
Skinner, A. F. 172-72.
Skinner, Charles R. 245-83.
Skinner, Frank W. 49-22.
Slater, Edward T. 129-92.
Slater, J. W. 252-66.
Slater, P. F. 93-50.
Slater, T. 267-65.
Slicer, Thomas R. 51-68.
Sloan, A. M. 246-21.
Sloane, W. M. 230-29.
Slocum, F. L. 122-98.
Sly, Mary E. 48-5.
Small, A. W. 48-11.
Smalley, E. V. 49-22; 223-57.
Smart, Charles. 306-22.
Smart, William. 91-21; 92-33; 141-82; 159-76.
Smith, A. H. 50-41.
Smith, A. W. 220-66.
Smith, Alfred. 100-76; 103-79; 136-75; 138-26.
Smith, E. O. 24-35.
Smith, E. Shapnell. 257-58.
Smith, Edwin. 304-78.
Smith, Edwin F. 225-3.
Smith, Edwin Burritt. 46-64; 47-74; 48-12; 159-65.
Smith, Erwin F. 250-99; 306-67.
Smith, Frank C. 307-60.
Smith, G. H. 243-28.
Smith, Goldwin. 64-62.
Smith, H. 285-35.
Smith, H. Llewellyn. 141-69.
Smith, H. T. 163-51.
Smith, J. 5-97.
Smith, J. E. 128-58.
Smith, J. H. 37-59.
Smith, James Henry. 89-84.
Smith, Joel W. 49-22.

Smith, J. Toulmin. 4-58; 274-40; 276-3.
Smith, Katharine Louise. 104-88; 221-1.
Smith, Mary Roberts. 191-14.
Smith, Orlando J. 290-43.
Smith, Rufus B. 204-63.
Smith, S. 192-40; 241-91.
Smith, T. Carpenter. 162-32; 166-26.
Smith, Thomas E. V. 186-1.
Smith, W. C. 276-12.
Smith, W. S. 261-53.
Smyth, William R. 287-67; 288-78.
Snow, F. Herbert. 33-57; 113-83; 249-82.
Snow, J. Lippit. 232-80.
Snow, Marshall. 237-79.
Snow, R. W. 290-44.
Snowden, Yates. 45-53.
Snyder, C. B. J. 192-46.
Snyder, Geo. D. 258-73.
Snyder, John. 237-81.
Sodoffsky, Gustav. 236-67, 68.
Sohm, Rudolph. 83-75.
Solly, H. 99-58.
Somerhausen, ——. 19-3.
Somers, Richard. 290-15.
Sommer, Berthold. 183-33.
Sommerville, W. A. 136-63.
Sonneman, L. 90-14.
Soper, George A. 307-52.
Soper, J. P. H. 146-75.
Sospicio, Henri. 124-61.
Souden, Fred T. 146-69.
Southern, J. W. 116-42.
Souviron, Alfred. 77-15; 78-40; 207-15.
Soyka, I. 252-70.
Spahr, Jean Fine. 107-65.
Spalding, Fred P. 219-34.
Spalding, Henry. 100-74; 231-29.
Spalding, Thomas Alfred. 141-71.
Sparling, Samuel Edwin. 47-93; 71-89; 311-45, 49.
Speakman, Thomas H. 66-5; 217-90, 3.
Speare, S. L. 155-84.
Speed, John Gilmer. 50-30.
Speirs, F. W. 163-87; 224-80; 225-2; 271-54; 298-39.
Spence, C. H. 231-40.
Spence, Catherine H. 14-94.
Spencer, Anna Garlin. 42-64.
Spencer, David E. 311-47.
Spencer, Edward. 62-8; 99-54.
Spencer, Nelson S. 176-75.
Spencer, Walter B. 172-87.
Sperry, Henry M. 49-27.
Spielhagen, Fr. 19-21, 23.
Spindler, Will. 20-34.
Spofford, Ainsworth R. 301-19.
Spooner, W. A. 206-91.
Sprague, Frank J. 196-11; 197-40; 264-11; 269-6.
Sprague, Henry H. 26-80, 84.
Springer, Wm. N. 229-91.
Stallard, J. H. 224-80; 239-17, 26, 35; 240-52.
Staly, Cady. 252-54.
Stammhammer, Josef. 163-67.
Standiford, Charles W. 197-30.
Starr, Ellen Gates. 12-46; 51-69.
Starr, Merritt. 46-73.
Starring, Ford. 60-80.
Statham, H. Heathcote. 12-41; 36-43; 130-13; 140-51; 208-57.
Staub, A. 112-79.
Stayton, Geo. H. 139-42.
Stead, F. H. 46-62.
Stead, W. T. 46-66; 48-98; 50-49; 58-60a; 64-48; 131-27; 191-25.
Steadman, W. C. 136-69.
Stearns, C. K. 255-34.
Stearns, F. P. 151-100; 302-33.
Steele, John S. 180-57.
Steevens, G. W. 26-73; 46-59; 175-55; 188-43; 223-49; 301-6.
Steffenhagen, H. 85-3; 90-7.
Steffens, J. L. 35-27.
Stegman, R. 234-20.
Steiner, Ralph. 156-16.
Stephen, Archibald. 280-19.
Stephens, Henry C. 276-6.
Stephens, J. E. R. 105-22; 251-41; 285-39.
Stephens, Thomas. 182-97.
Stephenson, John. 184-41, 56; 190-86.
Sternberg, George M. 96-3.
Sterne, Simon. 4-66; 66-8; 145-49; 174-29; 181-73; 198-42.
Steuart, Sir James. 228-79.
Steude, M. 121-69; 303-60.
Stevans, C. M. 181-73.
Stevens, Alzina P. 47-96; 48-18.
Stevens, Charles E. 6-17.
Stevens, E. R. 169-95.
Stevens, Frank B. 75-94; 220-69.
Stevens, F. J. Warden. 125-86.
Stevenson, Mrs. Cornelius. 3-30; 223-52.
Stevenson, D. M. 272-78.
Stevenson, E. Irenaeus. 193-69.
Stevenson, F. W. 123-21.
Stevenson, G. E. 149-49.
Stevenson, Thomas. 242-25.
Stewart, A. J. 31-24.
Stewart, Alex. 253-88.
Stewart, D. H. 246-19.
Stewart, Ethelbert. 114-5.
Stewart, George. 233-93.
Stewart, Gilbert. 3-36; 204-66.
Stewart, Jane A. 17-67; 31-7; 33-60.
Stewart, Seth T. 246-30.
Stickney, Albert. 230-47.
Stieda, Wilhelm. 87-44.
Stiles, Henry R. 184-44.
Stiles, W. A. 190-94.
Stilgoe, Henry E. 61-2.
Still, A. 283-70.
Stillman, Howard. 307-44.
Stimson, F. J. 291-65; 292-91, 92.
Stoddard, W. O. 191-17.
Stolp, Hermann. 89-85.
Stolz, Ferd. 237-77.
Stone, J. H. 276-8.
Stone, Melville E. 47-83; 49-18.
Stone, William L. 185-72.
Storer, J. J. 241-78.
Story, John. 115-24.
Storrs, Richard Salter. 175-41.
Story, John. 115-24.
Stott, H. 251-48.
Stout, Robert. 203-36.
Stoval, Pleasant A. 244-58.
Stover, Charles B. 193-62; 248-67.
Stowe, J. G. 10-95.
Strachan, James. 112-68.
Strachan, Robert C. 178-11.

Strache, Hugo. 124-57, 58, 63, 68.
Strachy, J. St. Loe. 61-92.
Stratton, F. S. 38-79.
Straus, Carl. 87-41
Straus, Nathan. 215-27.
Strauss, Paul. 42-83; 105-23; 208-43; 208-51; 242-19; 245-100.
Strecker, A. H. 122-28.
Streckfuss, Adolf. 21-53.
Strong, Josiah. 9-67; 42-69; 51-64, 73, 74.
Strong, Thomas N. 51-63; 230-20.
Strong, W. L. 7-32; 53-7.
Strutz, ——. 87-48.
Stuart, A. K. 298-40.
Stuart, Edwin S. 224-78.
Stübben, J. 9-74; 12-42; 13-63, 67; 54-18; 62-18a; 68-33, 34; 86-20; 103-55; 205-88; 211-45; 213-73; 216-65; 258-83, 96; 280-30; 269-22.
Stubbs, William. 280-12; 281-24.
Stürcke, Louis. 201-98.
Sturge, Elizabeth. 33-52.
Sturgis, F. R. 45-37.
Sturgis, R. Clipston. 259-2.
Stursberg, ——. 232-63.
Sugg, William. 122-4.
Sullivan, F. P. 267-72.
Sullivan, J. W. 61-88a; 259-11.
Sullivan, P. F. 168-75.
Sullivan, T. R. 28-41.
Sulzberger, M. 66-90.
Supan, Alex. 229-6.
Suplee, Henry Harrison. 118-78.
Swaab, S. M. 253-80.
Swaffield, Walter J. 28-35.
Swan, J. W. 122-10.
Swan, N. 85-94.
Swarts, Gardner T. 307-50.
Sweet, Ada C. 46-61.
Sweet, J. S. 169-99.
Swift, Lindsay. 28-41.
Swift, Lucius B. 106-90; 159-64.
Swift, Morrison I. 114-7; 240-59; 247-58; 248-78.
Swinton, A. A. C. 118-4; 119-23; 278-63.
Swoope, C. Walton. 224-77.
Sykes, John F. J. 101-5, 6; 105-14; 241-67; 242-22.
Sykora, Carl. 300-91.
Symmes, Frank J. 161-19; 240-48.

T

Tackels, C. J. 242-15.
Tafel, Gustav. 160-93; 161-16.
Taggart, ——. 159-68.
Taggart, Frederick J. 116-50.
Talbot, Arthur N. 249-84; 252-53.
Talbot, J. E. 31-7.
Talbot, M. 248-77.
Talcott, Mary C. 96-99.
Tammeo, G. 232-65.
Tandy, L. D. 296-96.
Taney, J. B. 18-92, 93.
Tanner, John R. 50-32.
Tarbell, Ida M. 209-84.
Tarnowsky, ——. 232-69.
Tattersall, C. H. 238-8.
Taüber, K. P. 244-69.
Taulier, A. 77-26.
Taussig, F. W. 291-66.
Tavernari, C. 221-4.
Taylor, A. 285-27.
Taylor, Benjamin. 92-44; 93-50, 51; 121-66; 284-3.
Taylor, Graham. 101-22; 192-56.
Taylor, Samuel M. 92-43.
Taylor, Warren. 194-85.
Teall, O. S. 7-32.
Tekulsky, Morris. 126-7.
Telford, John. 310-40.
Tenier, Charles. 33-68.
Tenius, Gustav. 89-88.
Terhune, Everitt Bogert. 33-71.
Terne, Bruno. 84-80.
Terrell, Ada K. 43-93.
Terry, Henry T. 53-99; 64-39.
Testart, A. 150-78.
Tetley, William C. 90-8.
Tew, J. S. 101-18.
Thacher, John Boyd. 10-97; 64-42.
Thaw, A. B. 179-43.
Thayer, George S. 166-33.
Thayer, R. 212-68a.
Theard, Alfred F. 173-4.
Thiele, L. 22-78.
Thiess, Karl. 273-8.
Thiriat, M. 81-24.
Thiteau, J. B. 298-44.
Thoinot, L. 211-37.
Thoma, ——. 42-75.
Thomas, Claude M. 150-76.
Thomas, E. 104-3; 222-30.
Thomas, J. F. 290-50.
Thomas, John Lloyd. 104-91.
Thomas, Karl. 113-80.
Thomas, Miss M. Carey. 245-99.
Thomas, Octavius. 234-9.
Thomas, Thaddeus P. 15-9.
Thomé de Gamond, A. 126-25.
Thompson, A. D. 68-28b; 108-85; 219-60, 63, 67; 222-32, 34; 251-28.
Thompson, Clifford. 76-2.
Thompson, Daniel Greenleaf. 194-91.
Thompson, David M. 232-70.
Thompson, Elihu. 119-10.
Thompson, G. F. 117-69.
Thompson, Gibson. 33-67.
Thompson, H. 37-55, 67.
Thompson, James. 290-6.
Thompson, R. E. 291-73.
Thompson, Seymour D. 5-3; 164-86.
Thompson, Silvanus P. 264-11.
Thompson, T. Kennard. 285-43.
Thompson, W. 276-86; 284-11.
Thomson, Edith Parker. 243-51; 311-59.
Thomson, Gilbert. 251-32.
Thomson, James. 62-17.
Thorlet, Léon. 78-48; 79-86; 81-26, 33.
Thornbury, Frank J. 306-27; 307-43; 308-71.
Thornbury W. 139-32.
Thorne, W. H. 174-28.
Thresh, J. C. 310-16.
Thring, Lord. 275-67.
Thudichum, George. 249-84; 251-32; 285-38.
Thurber, F. B. 198-53.
Thurston, Gates P. 170-34.
Thury, M. 271-49.
Tidy, C. M. 253-81.
Tiedeman, Christopher G. 227-41; 294-32.
Tieftrunk, F. 120-56.
Tilden, James A. 144-34.

Tilden, Samuel J. 198-46, 47; 201-10.
Tillson, George W. 218-33; 219-38, 40, 54; 220-80, 82.
Tiltman, Hessell. 17-80, 81.
Tite, W. 211-43.
Todd, ——. 161-18.
Todd, Charles Burr. 184-43, 49; 186-94; 193-56; 301-21.
Tolman, Wm. Howe. 7-32; 8-46; 17-66, 73; 18-83; 101-96; 106-48; 107-68; 176-60; 177-82, 83; 179-30, 41; 186-9; 192-39, 55; 194-84; 246-30.
Tomlinson, Thomas. 84-82.
Tomn, Lillian. 14-59; 203-38.
Tompkins, Elizabeth A. 188-49.
Tooke, C. W. 71-88, 100, 1; 72-3, 9; 74-64; 157-23, 25; 163-51; 251-44.
Tooley, S. A. 207-34.
Torrens, W. M. 130-96.
Torrents y Monner, A. 255-22.
Toulmin, George. 230-28.
Towle, Stevenson. 212-16.
Towner, Hiram. 195-3.
Townsend, Horace. 127-27.
Townsend, Mrs. John D. 41-51; 58-65.
Toynbee, H. V. 44-19; 145-57.
Tracy, Roger S. 228-86; 242-4.
Trani, V. 110-28.
Trask, Spencer. 184-42.
Trautmann, A. 90-4.
Trautmann, Mary E. 192-43.
Trautwine, John C., Jr. 225-3, 5; 305-18.
Treichler, J. J. 312-35.
Tremain, Henry Edwin. 161-6.
Trenholm, William L. 246-26.
Treub, M. W. F. 97-9.
Trevelyan, C. P. 259-14.
Treves, Claudio. 109-2.
Tribus, Louis L. 45-55; 76-1.
Trickett, W. 222-19.
Tricoche, George Nestler. 187-21.
Trollope, T. A. 278-48.
Tröltsch, Walt. 87-51.
Troske, L. 144-48.
Trotter, A. P. 117-56.
Truslow, Arthur. 215-43.
Tryon, Thos. 13-64.
Tsanoff, Stoyan Vasil. 215-38, 39, 42.
Tubbs, J. Nelson. 169-17.
Tucker, Preble. 176-64.
Tucker, R. S. 176-64.
Tucker, Wm. J. 30-79a.
Tuckerman, W. P. 214-17.
Tully, T. De Quincy. 177-1.
Turiello, P. 170-27.
Turnbull, Thomas. 243-46.
Turneaure, F. E. 148-16.
Turner, M. A. 258-90.
Turner, W. L. 294-88.
Turquey, Elie. 73-24; 80-17.
Tupper, E. Sherburne. 94-71.
Tuttle, Arthur S. 199-63; 305-5.
Tuttle, Leonard. 73-40.
Twelvetrees, W. N. 27-17; 144-44; 307-43.
Tyler, G. R. 130-17.
Tyler, H. L. 117-67.
Tyler, Lyon G. 310-29.
Tyng, T. Mitchell. 194-93.

U

Uebelacker, C. F. 157-31.
Ufford, Walter Shepard. 42-77.
Uhland, W. H. 118-86.
Uhle, John B. 242-5.
Ulbrich, J. 14-2a.
Unger, ——. 96-96.
Ulrich, B. A. 70-74.
Ulrich, C. F. 306-24; 309-15.
Uppercu, J. W. 262-74.
Upton, G. P. 47-94.
Upton, J. Kendrick. 40-28; 71-79.
Urbanitsky, A. 118-88.
Urdahl, Thomas K. 163-75.
Urquhart, W. P. 279-70.

V

Vacchelli, Giov. 110-23.
Vachee, Francis. 17-74.
Vacherot, ——. 62-6.
Vail, Anna Murray. 189-79.
Vaissière, M. 211-42.
Valentine, D. T. 186-99.
Valesh, Eva McD. 187-21.
Valframbert, Charles. 275-83.
Vallance, William. 133-77; 277-35.
Vallandigham, E. N. 310-33.
Valleroux, Herbert. 18-1b; 78-52.
Van Buskirk, W. F. 250-16.
Van den Heuvel, J. 19-17.
Vanderlip, F. A. 301-16.
Vandewalker, Nina C. 48-16.
Vandervelde, E. 158-53.
Van Gasken, ——. 224-74.
Van Geert, Prosper. 11-25; 18-1a.
Van Gilsie, J. A. 98-29.
Vanlaer, Maurice. 19-16; 81-20.
Van Pelt, Daniel. 175-48.
Van Rensselaer, (Mrs. Schuyler), M. G. 13-77; 175-49; 185-65; 185-77; 192-44; 244-75.
Van Vechten, Emma. 185-91.
Van Vloten, ——. 265-23.
van Wetter, R. 118-98.
v. d. Werra, F. M. 197-30.
Van der Weyde, N. J. 194-82.
Van Zandt, A. D. B. 60-82.
Van Zanten, J. H. 11-21.
Varney, Geo. J. 31-7.
Vassault, F. I. 65-68a.
Vaughan, Victor C. 105-21.
Vauthier, Maurice. 18-96; 275-60.
Vautier, Theodore. 123-40.
Veber, Adrien. 81-18; 113-87; 162-28; 163-65, 72; 170-21; 208-50, 55; 209-80; 73-26.
Veiller, Laurence. 107-60, 63, 70; 178-9; 184-35, 41.
Vencataratnam, Ganjam. 148-20.
Verdier, A. R. 237-79.
Vermeule, C. C. 172-85.
Vértess, Josef. 118-79.
Viallate, A. 194-85.
Vickers, George. 223-57.
Vidal, Georges. 126-11.
Viele, Egbert L. 228-86.
Vigoni, G. 154-62.
Vigouroux, Louis. 14-97.
Villain, Georges. 210-99.
Villard, Oswald Garrison. 186-100.
Vincent, Edgar L. 72-14.

Vincent, George E. 51-59.
Vincey, Paul. 208-59.
Vinck, Emilio. 19-12.
Vine, J. B. 274-55; 280-15.
Vischer, J. 46-64.
Vivarez, H. 118-1.
Vivian, H. 133-84.
Vogel, J. H. 252-67.
Volkmer, Volkner. 228-81.
von Below, G. 98-71.
von Bilinski, Leon Ritter. 87-55.
von Boenigk, Otto. 271-68.
von Brandt, Alexander. 97-16.
von Emperger, Fritz. 31-9.
von Feistmantel, H. Ritter. 300-82.
von Frankenberg, H. 271-64.
von Friedenfels, Josef Freih. 14-4.
von Gneist, Rudolph. 20-24; 87-35, 49; 129-93; 276-87.
von Heckel, Max. 16-54; 73-22; 287-74.
von Holst, H. 5-100.
von Inama-Sternegg, Karl Theodor. 14-4, 5; 298-50.
von Jagow, Eugen. 209-71.
von Kaufmann, R. 79-84; 291-70.
von Langsdorff, Karl. 253-87.
von Lenz, Richard. 271-68.
von Mangold, Carl. 153-41; 310-26.
von Maurer, G. L. 88-67.
von Nostitz, Hans. 287-71.
von Pedhagsky, J. 299-67.
von Reitzenstein, Baron. 43-100.
von Reitzenstein, F. Frh. 70-60.
von Rosenberg, Wm., Jr. 14-93.
von Schoen, ——. 299-73.
von Soden, Herman. 21-52.
von Stengel, Karl Freih. 86-13.
von Wattenwyl, J. 273-29.
von Welck, A. 16-54.
Vreeland, H. H. 167-72; 168-75; 195-1; 196-27; 263-86.
Vrooman, F. B. 104-1.
Vrooman, Walter. 161-7; 190-91; 215-42.

W

Wade, G. A. 142-6.
Wade, H. T. 65-83.
Wade, James J. 251-51.
Wadlin, H. G. 28-33; 151-85; 152-6.
Wagner, ——. 148-32.
Wagner, A. H. G. 87-52.
Wagner, Adolph. 70-69; 79-85; 87-40.
Wagner, Charles. 208-63.
Wagner, Herm. 229-6.
Wagner, Samuel Tobias. 225-93.
Wahl, Christian. 214-96.
Wait, H. H. 125-78; 119-15; 125-98.
Wait, J. C. 68-32.
Waite, Henry Randall. 5-90.
Wakeman, Antoinette van Hoesen. 43-4; 150-73.
Walbridge, C. P. 52-85.
Walcker, Karl. 83-79.
Waldo, Eveline A. 173-3.
Waldo, F. J. 105-15; 243-36, 37.
Waldron, Geo. B. 174-28.
Walford, Edward. 253-88.
Walker, F. A. 83-63a.
Walker, J. B. 228-86; 269-6.
Walker, Norman. 172-88.
Walkley, Arthur B. 143-16.
Wallace, J. M. 169-2.
Wallace, John. 16-46.
Wallace, Johnstone. 171-50.
Wallace, Lew. 56-34.
Wallbrecht, ——. 96-95.
Wallet, Paul. 244-60.
Walling, Geo. 191-20.
Wallis, W. E. 100-74; 136-71.
Walsh, Gertrude Ethelbert. 51-57; 264-11.
Walter, A. E. 267-63.
Walters, Lucy. 139-32.
Walthew, George W. 3-49.
Walworth, Ellen H. 243-57.
Wambaugh, Eugene. 159-76.
Wanklyn, Alfred J. 249-79; 308-49.
Ward, C. Osborne. 94-65.
Ward, Mrs. Humphrey. 141-85, 86.
Warden-Stevens, F. J. 84-72a.
Wardle, Thomas. 252-62.
Ware, James E. 106-52.
Ware, Thomas Webb. 14-98; 203-40.
Waring, George E. 1-7; 40-19a; 150-72; 153-39; 173-4; 175-44; 183-24; 186-2; 189-66, 68; 190-92, 7; 192-36; 193-72, 76, 77; 198-58; 215-40; 217-39; 228-74; 232-83; 240-64; 250-4, 5, 13; 252-58; 252-61; 257-51, 57, 59, 60, 62, 64; 290-33; 295-69; 302-32.
Warner, A. G. 301-25; 40-32; 45-39, 40; 44-21; 271-54; 272-79.
Warner, Brainard H., Jr. 115-31.
Warner, Geo. E. 165-1.
Warner, John De Witt. 10-92; 12-62; 30-93; 32-45; 49-25; 113-98; 168-75; 177-91; 188-45, 47; 189-77; 201-3; 225-100; 235-30.
Warner, Stutler. 257-55.
Warren, C. 139-45.
Warren, E. P. 143-10.
Warren, Frederick M. 211-47.
Warren, May Spencer. 138-23.
Warrum, Henry. 293-31.
Washburn, Albert H. 56-40; 89-99.
Waterlow, David, 136-67.
Waterlow, Sir Sydney. 102-28.
Waterlow, Sydney H. 106-43.
Waters, Theodore. 36-37.
Watson, Aaron. 171-48.
Watson, Edward W. 65-82.
Watson, Ellen. 226-25.
Watson, James. 32-33.
Watson, John. 224-70.
Watson, John F. 184-37.
Watson, W. M. 84-76; 95-92; 262-63; 309-15; 250-13; 252-55; 252-58.
Watt, Robert. 92-32.
Wattenberg, William. 159-76.
Watts, Franklin. 119-11.
Waugh, B. 41-41; 42-67.
Waurin, Louis. 85-87; 259-11.
Wauters, Alph. 19-7.
Way, T. R. 132-49.
Wayl, Th. 257-68.
Weakley, John B., Jr. 74-61.
Weaver, Emily P. 224-69.
Weaver, (Mrs.) E. A. 239-23.
Weaver, William. 258-92.
Webb, Herbert L. 55-31.
Webb, James Avery. 74-62.
Webb, Sidney. 103-78; 129-86; 130-6; 139-43; 274-56.

Webber, W. H. Y. 124-70.
Webber, Wm. L. 237-75.
Webber, William O. 93-56.
Weber, Adna Ferrin, 229-89; 259-1.
Weber, G. A. 106-45.
Weber, John. 227-39.
Weber, John B. 42-71.
Webster, George S. 225-93.
Webster, W. C. 294-48.
Weeden, William B. 232-78.
Weeks, Anna R. 116-51.
Wegmann, Edward. 56-39; 114-11; 199-72.
Weill, Friedrich. 256-46.
Weinstein, ——. 228-76.
Weinstock, Henry. 161-19.
Weise, A. J. 10-98.
Weissman, Henry. 188-44.
Weitzel, S. W. 239-22.
Welby, Sir Reginald Earle. 131-32.
Welch, Charles. 135-40.
Welch, J. H. 183-15.
Welch, William H. 241-10.
Welles, Henry J. 183-20.
Welling, J. C. 301-18.
Wellisch, S. 299-76.
Wells, D. A. 201-9; 73-48, 49; 70-61; 73-42.
Wells, J. 45-44.
Welsh, Charles. 107-74; 128-65.
Welsh, H. 64-64.
Welsh, Herbert. 7-23; 8-47a, 61, 63; 53-95, 1; 113-80; 223-46; 224-90; 311-57.
Wende, Ernest. 167-57.
Wentworth, John. 47-87.
Wernher, Adf. 36-49.
Westcott, J. T. 124-66.
Wescott, Thompson. 224-72.
West, E. L. 111-52.
West, Max. 73-30; 139-72; 301-15.
Westergaard, ——. 272-89.
Westergaard, Niels. 56-41.
Westgarth, William. 136-74.
Weston, Edmund B. 203-45; 304-47; 78; 305-13.
Wetherbee, George A. 151-1.
Wetherill, Edith. 223-52.
Wetmore, Jean. 119-24.
Wetzler, Joseph. 199-70.
Weyl, Th. 22-76.
Whale, George. 130-97.
Whalen, John. 197-30.
Whalen, Thomas A. 29-67.
Wheatley, Richard. 192-36; 190-8; 294-33.
Wheeler, D. H. 194-85.
Wheeler, Everett P. 45-51; 193-59; 5-88.
Wheeler, Wm. 13-80.
Wheelock, Webster. 238-95.
Whelan, D. P. 234-13.
Whelan, Frederick. 140-64; 132-75; 130-100.
Whinery, S. 218-20; 218-28; 218-22.
Whipple, Fred H. 117-64.
Whipple, George C. 303-58; 305-6; 199-60; 306-26.
White, Arnold. 133-80; 273-34.
White, A. D. 289-19; 245-89.
White, Alfred T. 196-58; 199-61; 296-5; 99-53; 100-90; 106-38; 106-42.
White, Francis H. 179-27; 41-60.
White, Gaylord I. 186-4.
White, H. C. 159-62; 44-19.
White, H. L. 215-37.
White, H. 15-31.
White, Henry. 114-2; 188-46; 243-53.
White, James H. 240-65.
White, Robert. 136-64.
White, W. Howard. 196-11; 83-66.
White, William A. 111-64.
White, William H. 121-79.
Whiteing, Richard. 207-12, 14, 17.
Whitelegge, B. Arthur. 242-17.
Whiting, Lillian. 28-27.
Whitlay, J. H. 94-70.
Whitman, Sarah W. 244-73.
Whitmore, C. A. 129-75; 129-71; 128-50; 134-13; 139-48.
Whitmore, Henry. 29-71.
Whitney, J. Eugene. 231-40.
Whitredge, Frederick W. 216-77.
Whitridge, F. W. 64-36; 65-84.
Whitten, Robert Harvey. 151-88; 292-94, 95.
Whitten, Robert H. 292-94, 95.
Whitten, W. H. 47-78.
Whittle, C. L. 151-86.
Wickett, S. M. 39-99.
Wieck, B. 258-82.
Wight, Chas. L. 267-66.
Wigmore, J. H. 65-68a.
Wilberforce, H. W. W. 285-19.
Wilbour, Joshua. 62-10.
Wilby, Chas. B. 8-59; 51-76; 52-88.
Wilcox, Delos F. 5-83; 13-83; 54-13; 153-50; 181-73; 202-27; 204-62; 288-98; 289-9, 10.
Wilcox, J. W. 258-77.
Wilcox, Walter F. 158-52; 163-56; 165-99.
Wilder, A. P. 4-76; 8-43.
Wilder, E. A. 234-23.
Wiler, C. 119-12.
Wiley, J. M. 26-64.
Wilhelm, Lewis W. 150-79.
Wilke, D. 236-70.
Wilkiemeyer, H. 125-91.
Wilkins, H. 280-98.
Wilkinson, James B. 205-74.
Wilkinson, John J. 120-62.
Wilkinson, Robert F. 200-90.
Wilkinson, Spenser. 133-89.
Will, J. S. 282-61; 283-76; 288-85; 288-90.
Will, T. E. 4-77; 7-32; 24-12, 15; 64-63; 215-37; 273-34.
Willebrand, J. P. 258-85.
Williams, Benezette. 233-92.
Williams, C. 190-8.
Williams, D. E. 55-22.
Williams, Fleming. 135-43.
Williams, Gardner S. 154-59; 303-64; 60-84.
Williams, H. S. 83-63a; 193-72; 211-42; 179-38; 192-38; 183-22; 42-68.
Williams, Henry W. 57-54.
Williams, I. P. 279-72.
Williams, J. H. W. 274-55.
Williams, J. J. 83-63a.
Williams, Jesse Lynch. 183-33; 194-81; 176-69.
Williams, Leighton. 4-67; 8-52.
Williams, Mary B. H. 17-68.
Williams, Robert. 137-83; 136-66.
Williams, Sylvester G. 57-53.
Williams, Talcott. 224-71; 194-85.
Williams, (Mrs.) Talcott. 224-89.
Williams, Timothy S. 72-17a.
Williams, William Klapp. 127-47.

Williams, W. M. J. 279-96.
Williamson, Emily E. 106-48; 172-71.
Willis, S. T. 192-49.
Willoughby, Edward F. 145-63; 242-21; 250-18.
Willoughby, W. F. 289-25; 271-56, 62; 80-6; 272-73.
Willoughby, W. W. 289-25.
Willcox, Francis W. 119-26; 122-14.
Willson, Arthur L. 261-58.
Wilmshurst, T. P. 94-69.
Wilson, A. J. 132-73.
Wilson, Andrew. 305-19.
Wilson, Anna T. 41-54.
Wilson, C. H. 163-55.
Wilson, Chester P. 254-96.
Wilson, E. D. J. 278-50.
Wilson, Edmund J. 101-19.
Wilson, F. Cortez. 117-67.
Wilson, George B. 232-79.
Wilson, George G. 232-72.
Wilson, George R. 126-9.
Wilson, George W. 232-82.
Wilson, H. L. 263-77.
Wilson, James Grant. 185-80.
Wilson, John L. 183-16.
Wilson, Joseph M. 225-4.
Wilson, Philip W. 28-41.
Wilson, Rufus R. 298-34.
Wilson, T. M. 203-49.
Wilson, Woodrow. 1-7b, 2-14.
Winchester, A. E. 166-27.
Windmüller, Louis. 241-79; 216-60; 36-52; 178-19; 189-67.
Wines, E. C. 42-65; 227-49.
Wines, Frederick Howard. 227-46; 202-22; 189-65; 27-8; 11-18; 45-48; 40-17, 21; 126-13.
Wingate, Charles F. 309-15; 243-52; 241-87; 198-42; 192-36; 187-21; 113-95; 107-60; 105-13; 11-23.
Winkler, F. C. 154-74.
Winslow, F. E. 193-60.
Winsor, Anna Ware. 134-50.
Winsor, Justin. 28-25.
Winter, Alexander. 202-29.
Wintle, W. J. 144-42.
Wirminghaus, A. 229-94.
Wisner, Edward. 160-100; 161-8.
Wiss, Ed. 102-52.
Wist, Joh. 102-36.
Withington, W. H. 111-53.
Withrow, W. H. 262-66.
Witz, Gustav. 9-81.
Wodiczka, W. 289-68.
Wolcott, Mrs. Roger. 42-78.
Wolf, J. 273-22.
Wolff, Paul. 205-75.
Wollman, Henry. 50-40.
Wood, ——. 161-18.
Wood, Edmund. 171-44.
Wood, Esther, 141-79.
Wood, Frank, 250-1.
Wood, Henry B. 30-92.
Wood, Leonard. 243-56.
Wood, Octavius Grant. 101-98.
Wood, T. McKinnon. 129-73.
Woodburn, James A. 53-94.
Woodbridge, J. E. 94-64.
Woodbridge, S. H. 246-23.
Woodford, Arthur Burnham. 223-53.
Woodhead, G. Sims. 230-7.
Woodman, Alpheus G. 240-56.
Woodruff, Clinton Rogers. 9-66; 8-45, 54; 6-19; 7-23; 159-65; 173-98; 221-17; 222-21; 225-10; 225-3; 224-80; 222-43, 51, 53, 63; 289-31; 292-89; 290-41.
Woods, Henry D. 68-86; 211-25; 151-1.
Woods, R. A. 247-56; 247-49; 248-73; 247-59; 248-72; 51-58; 44-31a; 30-77, 79, 79a; 92-38; 142-94.
Woods, Robert P. 219-53.
Woodward, Frank E. 2-17; 23-10.
Woodward, W. A. 125-100.
Woodward, Wm. 140-62.
Woodward, W. C. 84-77; 84-79.
Woodworth, A. V. 272-96.
Wooley, Charles. 186-98.
Woolf, M. A. 179-37.
Woolsey, T. D. 227-36.
Wordingham, C. H. 149-47.
Worms, F. 78-59.
Wormsley, B. 276-98.
Worsley, Abby Howland. 42-87.
Worth, John Edward. 141-88.
Worthington, T. Locke. 100-63.
Wright, A. O. 45-52; 40-34.
Wright, Austin W. 158-51.
Wright, Carroll D. 100-65; 273-34; 229-10; 162-49; 295-69; 293-23; 296-97.
Wright, Geo. G. 33-92.
Wright, John Livingston. 31-7; 27-16.
Wright, John S. 47-86.
Wright, R. S. 130-99; 275-80.
Wright, Willis B. 153-44.
Wtoroff, Nicholas. 3-39.
Würmli, G. 312-81.
Wurster, ——. 159-63.
Würzburger, Eugen. 221-3.
Wylie, James R. 43-9.
Wyman, Walter. 294-46.
Wynkoop, Hubert S. 67-21; 67-19; 123-25, 26.

Y

Yager, Arthur. 158-45.
Yaryan, Homer T. 307-43.
Yerkes, Charles T. 160-93; 163-53; 267-82.
Yorke, E. H. 125-90.
Young, George H. 114-12.
Young, Henry G. 30-83.
Young, James. 285-30.
Young, James T. 78-63; 244-71.
Young, John. 92-46; 296-87.
Young, John F. 2-24.
Young, Peter. 121-71.
Young, S. G. 243-30.
Young, W. E. 3-32; 25-53; 57-46.

Z

Zacharias, J. 113-89.
Zahn, G. H. B. 312-89.
Zehnder, C. 231-58.
Zelle, R. 36-7.
Zeumer, Karl. 87-54.
Ziffer, E. A. 14-6; 263-93, 94, 95; 300-83.
Zimmer, ——. 88-56b.
Zimmern, Helen. 209-82.
Zradlowski, Ferd. 90-5.
Zuppinger, C. 237-77.
Zueblin, Charles. 43-5.
Zur Nieden, Walter. 89-83.

MUNICIPAL AFFAIRS.

ISSUED AT QUARTERLY INTERVALS BY THE

Reform Club Committee on City Affairs, New York.

VOL. V, No. 2. *JUNE, 1901.* WHOLE No. 18.

OUR HERITAGE OF THE PICTURESQUE, EDWARD HAGAMAN HALL 349
GROWTH OF CITIES: 1890-1900, - - ADNA F. WEBER 367
ANOTHER VIEW OF MUNICIPALTIES AND VICE, - 376
FRANCHISE TAXATION IN ILLINOIS, HIRAM B. LOOMIS 388
VALUATION OF CITY REAL ESTATE FOR TAXATION, W. A. SOMERS 401

RAILWAY FRANCHISES:

RECENT LEGISLATION IN PENNSYLVANIA AND PHILADELPHIA, - - CLINTON ROGERS WOODRUFF 419
BOSTON'S NEW SUBWAY, - - WILLARD WINSLOW 427
NEW YORK'S SUBWAY POLICY, - WILLIAM J. GAYNOR 433
STREET RAILWAYS OF CHICAGO:
REPORT OF CIVIC FEDERATION COMMITTEE, 439
ANALYSIS OF FINANCIAL OPERATIONS, MILO ROY MALTBIE 441
ACCOUNTANT'S REPORT, - EDMUND F. BARD 484

BLIOGRAPHICAL INDEX, - - - - - - - 595
OGRAPHICAL NOTICES, - - - - - - 620

NEW YORK:
REFORM CLUB, COMMITTEE ON CITY AFFAIRS,
52 WILLIAM STREET.

LONDON: P. S. KING & SON, ORCHARD HOUSE, WESTMINSTER, S. W.
PARIS: SOCIÉTÉ NOUVELLE DE LIBRAIRIE ET D' EDITION, 17 R. CUJAS.
THE HAGUE: MARTINUS NIJHOFF.

Entered at the Post Office at New York, and admitted for transmission through the mails as second-class matter.

MORRIS OR JUMEL MANSION—WASHINGTON'S HEADQUARTERS.
(Built 1758.)—See page 354.

Copyright 1901, by the Reform Club Committee on City Affairs.
All Rights Reserved.

LIBRARY OF THE UNIVERSITY OF CALIFORNIA

OUR HERITAGE OF THE PICTURESQUE.

By Edward Hagaman Hall.

The Rescue of the Palisades.

The States of New York and New Jersey recently have given to the country a distinguished example of æsthetic progress, in the action of their Legislatures appropriating the sums of $400,000 and $50,000, respectively, for the preservation of the Palisades. Not since the appropriation of about a million and a half dollars by the New York Legislature in 1885 for the purchase of the Niagara Falls Reservation has so large a sum of money been set apart by our State government for a purely æsthetic object. The unalloyed approval of the action of the legislature by public sentiment indicates a very great advance in public opinion, for the usually quarrelsome taxpayer has consented without a grumble to the spending of nearly half a million dollars for the perpetuation of a beautiful landscape, without the slightest pretense that it is for the improvement of commercial facilities or the enhancement of real estate values.

The significance of the action is further emphasized by the fact that of the 13½ miles of precipitous and picturesque river front to be rescued from commercial vandalism, three-quarters are in the State of New Jersey, whose inhabitants cannot appreciate their beauty from their own soil, while only one-quarter lies in New York, whose inhabitants can view the whole stretch. For the privilege, therefore, of looking across the Hudson at an undefiled New Jersey landscape, New Yorkers are willing to pay eight-fold as much as their New Jersey neighbors, who really own the bulk of the property. If this is not an example of æsthetic progress, it would be difficult to cite one. What the progressive action of the two States means in the rescue of the landscape beauty of the Hudson from disfigurement is strikingly illustrated by two views shown below.

This achievement is the joint result of the public-spirited activities of four agencies—the American Scenic and Historic Preservation Society, the Federation of Women's Clubs of New Jersey,* a group of broad-minded and liberal men of New York and New Jersey, and the Inter-State Palisades Park Commissioners. With the fullest appreciation of the indispensable services rendered, and still being rendered, by the last three factors mentioned, a brief description of the work of the first during six years of existence may be of service.

THE PALISADES ABOVE FORT LEE.

Heretofore, the principal cultivators of municipal æsthetics have been the exclusively art societies. Six years ago Mr. Andrew H. Green conceived the idea of creating by special act of the legislature a corporation which should unite in one organization the efficient forces represented by the historical and the art societies. First known as "The Trustees of Scenic and Historic Places and Objects," it has recently changed to "The American Scenic and Historic Preservation Society." The incorporators were all public-spirited men, including, besides Mr. Green, Charles A. Dana, Oswald Ottendorfer, Chauncey M. Depew, Horace Porter, William M. Evarts, Benjamin F. Tracy, William Allen Butler, Wager Swayne, Alexander E. Orr, Charles R. Miller, Frederick W. De-

*Now the League for the Preservation of the Palisades.

voe, and some forty others. Around this nucleus have been gathered several hundred members, men and women.

The charter of the society, as originally drawn up, contemplated the gradual absorption into this corporation of all state commissions having anything to do with similar objects. The legislature struck out that feature, but left a carefully guarded body of powers, enabling the corporation to receive by purchase, gift, grant, devise or bequest, memorable or picturesque places and objects and administer them as trustees for the public good. It also authorized the corporation to act jointly with persons appointed by other States where joint action was necessary for the attainment of the object—the preservation of the Palisades being particularly in mind at the semi-official time. A status was given by the requirement of an annual report to the legislature and the privilege of making recommendations, by bill or otherwise, at any time.

AN INSTANT OF DISFIGUREMENT. (To be restored.)

The success attending its efforts and the demand for the conservation of scenery, landmarks and relics in all parts of the country—from the battlemented shores of Lake Champlain to the storied mounds of New Mexico and the leafy giants of California—have led to the recent enlargement of its charter powers, so that it may extend its operations to all parts of the United States.

Alliance of History and Art.

It is interesting to note how readily the scenic and historic principles merge. While an object may be picturesque without being historic, where it is old enough to be historic it is almost invariably picturesque. The magnitude of the size of a growing object, the softening color due to exposure to the elements, the

state of dilapidation due to neglect, the vegetable growths that spontaneously overrun an abandoned structure, the obsoleteness of style of architecture or construction due to progress in art or invention, all tend to give objects a picturesque aspect and frequently an educational or scientific value by the time they are old enough to be called "historic." On the other hand, there is a very strong probability that notable features of the landscape will be found to possess historic interest from identification with human activities. A great rock, like the Devil's Dans Kammer in Newburgh bay, would be selected by the aborigines for their councils or religious rites; a jutting crag, like the Flat Rock of the Pali-

STONY POINT BATTLE-FIELD.

sades, near Fort Lee, would be chosen for an observatory, sentinel post or signal fire; a great tree, like that at Cambridge, Mass., under which Washington took command of the Continental army, or the treaty oak in Pelham Bay Park, near Pelham Manor, under which the white settlers made their compact with the Indians, would be selected for an important ceremony; or a beautiful hill, like that in Tappan, N. Y., on which Major Andre was executed, would be chosen for the publication in the sight of a multitude of the terrible punishment that awaited the spy or the traitor. The first instinct of a military engineer in time of war is to erect his fortifications on commanding heights, which are invariably picturesque.

The battlefield of Stony Point, on the western side of the Hudson river, about 38 miles above New York, is a conspicuous example. Here is a peninsula of some 50 or 75 acres in extent, rising precipitously from the river and adjacent swamp to an elevation of 130 feet, which was successively fortified by the Americans and British during the Revolutionary war on account of its strategic value, and was made memorable by the daring exploit of

FORT CROWN POINT RUINS.

"Mad" Anthony Wayne on the night of July 15-16, 1779. This battle-crag—it can hardly be called a battlefield—a portion of which the American Scenic and Historic Preservation Society has persuaded the State to take for a state reservation, and of which it is the custodian for the State, commands probably a more extended and picturesque view of the Hudson river than any other point of equal elevation.

The battlefield at the head of Lake George, made notable by many tragic events, in the French-and-Indian and Revolutionary wars and the principal scene of Cooper's romantic novel, "The Last of the Mohicans," was not selected for the construction of Fort William Henry and Fort George and the Entrenched Camp primarily because it was picturesque, but because it was dangerously situated for military operations; but the very physical characteristics that gave it its strategic value and led to its becoming historic, made it picturesque. The reservation of 35 acres of this battlefield for another State park

not only perpetuates a beautiful landscape but preserves a memorable battlefield. The ruins of Ticonderoga, standing on the bluff where the outlet of Lake George empties into Lake Champlain and those largest and most impressive military ruins in the United States on Crown Point, Lake Champlain, fall directly into the same category of scenic-historic places, and are also the objects of the society's solicitude.

Preservation of Historic Buildings.

We notice a similar principle governing the location of some of the best architectural relics of colonial days. The *isolated* dwelling was situated, when possible, on some easily defended eminence which gave it a picturesque value in addition to any other which it might possess from intrinsic sightliness or acquire from personal associations. When these buildings were the homes of influential and wealthy families—and such families had their choice of locations—the houses were substantially built and in the best architectural form of the period, and therefore most likely to give to us the best picture of the architecture of their day. In this class may be mentioned the Washington headquarters in New York City, generally styled the Morris or the Jumel Mansion (see illustration on page 348). This building, which was an isolated dwelling nine or ten miles out in the country when it was built, is an exceptional combination of three elements—picturesque location, commanding a superb prospect of land, river and sound; beautiful architecture, one of the best preserved specimens of classic colonial building in America; and historic association, due to its occupation by Washington during a portion of the year 1776, and other celebrated individuals and families at other times, including Aaron Burr, who married Madam Jumel. The acquisition of this building and the surrounding land as park property at the instigation of the American Scenic and Historic Preservation Society is one of the most commendable acts of the present municipal administration.

Another building on Manhattan island, about a mile south of the Washington headquarters and on the same elevated ridge, is not so beautiful intrinsically as the Washington headquarters, but is not less interesting, namely, the residence of Alexander Hamil-

ton during the most distinguished years of his life as a statesman, and the home from which he departed that July morning in 1804 to meet his death at the hands of a Vice-President of the United States on the Weehawken duelling ground. During the last session of the Legislature, the Alexander Hamilton Post, G. A. R., and the Scenic and Historic Preservation Society took up the movement to have this building acquired by the city and moved back across the street to its original site by what is left of the thirteen symbolical trees which Hamilton himself planted. A bill making the purchase mandatory failed of passage, and a second bill, making it permissive, passed, but encountered the disapproval of Mayor Van Wyck. The house itself, as has been said, is of little intrinsic value, but as a reminder of the great American statesman, it is more eloquent than any other structure in New York City. The career of Hamilton—the West Indian boy of obscure parentage, the clerk, the college student, the ardent soldier, the chief secretary and confidential aide of Washington, the writer, the brilliant lawyer, the financier who as first Secretary of the Treasury organized the financial system of the United States Government the essential features of which still exist; the disinterested patriot who saved the nation and the State of New York by defeating the aspirations of a traitor for the Presidency of the one and the Governorship of the other—such a career is sure to inspire the loftiest ideals of American citizenship in the rising generation, as well as to excite the admiration of every mature inhabitant of the United States. It is a marvel that in the city of his home, upon which the

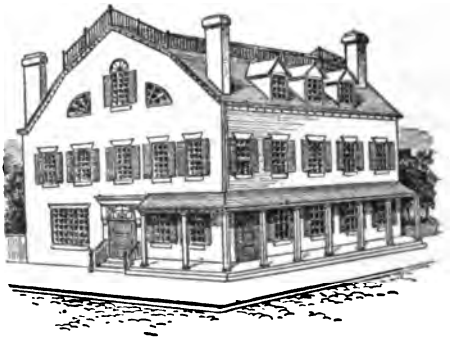
HAMILTON GRANGE, NEW YORK.

lustre of his name so brightly shines, there are only two monuments to his memory—a statue in Central Park, the individual gift of one of his own descendants, and a statue in front of the Hamilton Club, in Brooklyn, erected by the private subscriptions of the club members. Happily, public sentiment is awakening to an appreciation of the value of such reminders as the "Hamilton Grange" in promoting good citizenship by perpetuating the memories of good citizens, and it is not unreasonable to hope that this member of the extremely small group of historic buildings in New York may yet be brought within the pale of safety by some appropriate action by the legislature or municipal government.

THE POE COTTAGE.

Upon another hill, on the King's Bridge road, near East 192d street, stands a tiny cottage in which Edgar Allan Poe won many of his poet's laurels and in which his beautiful wife died. In the creation of the Poe park across the street, and in the effort still being made for the preservation of the cottage itself, particularly by the Women's Auxiliary of the Scenic and Historic Preservation Society, we see the love of the beautiful in letters lending its helping hand in the advancement of the City Beautiful.

There is a very encouraging prospect that the power of historic memories will be the means of adding another picpicturesque feature to the small park system of New York by the city's acquisition of the block or half block upon which stands the famous Fraunces' Tavern, at Broad and Pearl streets. This ancient house of entertainment, the scene of many patriotic



PROPOSED RESTORATION OF FRAUNCES' TAVERN.

meetings and distinguished ceremonies and the place in which Washington bade farewell to his officers at the close of the War for Independence, has been so altered as to leave almost no trace of its original appearance. At the earnest solicitation of the patriotic and historical societies, under the leadership of the American Scenic and Historic Preservation Society and its Women's Auxiliary, the President of the Borough of Manhattan, James J. Coogan, and the local board of the Tenth district, have favorably recommended to the board of public improvements the preservation of the building within the bounds of a small park. If this is done, willing hands will see that the building is restored to ancient quaintness of form, and it will become to New York what the Old South church and Faneuil Hall are to Boston, or Independence Hall to Philadelphia.

VAN CORTLANDT MANSION.
(Built 1748.)

The Van Çortlandt mansion, standing in the midst of the extensive acres of Van Cortlandt park, is a specimen of another school of colonial architecture, which, partly on account of its more remote location, has fared more fortunately than Fraunces' Tavern. This structure, dating back to the year 1748, is preserved in all its original architectural character, and the interior, in the hands of the Colonial Dames, presents many instructive features of colonial domestic life.

It would be well if the remarkable Philipse Manor Hall at Yonkers were as safely removed from danger of mutilation or destruction. This venerable building, the oldest part of which was

erected in 1682, is one of the most valuable antiquities of the Hudson. This is almost the only relic of the mediaeval feudal system which had a temporary foothold on the soil of this State, and is now occupied by the municipal government of Yonkers, which, under the pressure of the increasing needs of the city, is constantly tempted to alter or add to the structure. It will show a strange lack of civic pride if the Manor Hall Association, the Scenic and Historic Preservation Society and other conservative agencies which are at work do not soon succeed in placing the building entirely beyond the reach of vandalism.

Need of Foresight.

One great obstacle to the rescue of these buildings and sites is their enhanced value, due to the growth of the cities in which they are located. Undertaken a generation ago, these enterprises would not have cost so much; but that is no reason why tey should not be undertaken now before they become altogether impossible. We sigh at the lack of foresight of our ancestors and smile at the builders of the City Hall of New York, who made its southern face of marble but its rear of brick, in the belief that the city would never extend north of it. But hind-sight is vastly more perspicacious than foresight, and perhaps it is fortunate that it is so. If the unsophisticated Reckgawawancs who dealt with Director-General Minuit that May day in 1626 had ever imagined that land on the corner of Wall and Broad streets would sell for

PHILIPSE MANOR HALL.
(Built 1682)

$330.70 a square foot, it is doubtful if they would have sold the whole of Manhattan island to the Dutch at a price that would now buy only about ten square inches, and sachems in breech-cloths and feathers instead of sachems in tailor-made suits and silk hats might still be governing this domain.

Wisdom based on retrospect should be careful not to vaunt itself unless it applies its lessons to the present and the future; but we think that the present state of public sentiment on many of these subjects is sufficiently advanced beyond that of a generation ago to warrant some self-gratulation. We cannot retrace our steps and restore the Collect Pond, on the site of which the Tombs prison stands, or the little lake called Sunfish Pond, which once diversified the landscape, and afforded piscatorial amusement at 32d street and Lexington avenue, where the unsightly car stables now stand. We cannot go backward and recover St. John's Park, with its noble trees, which was sold by its private owners in 1867 to the Hudson River railroad for the site of a freight depot, or reclaim the great section of the City Hall park which was alienated to the United States Government three years later for the site of an architecturally most uninteresting postoffice. But it is safe to say that public sentiment would not tolerate for a moment the suggestion to part with such areas to-day. It is as impossible to conceive of our city fathers selling half of Madison square to the United States Government for a new Sub-Treasury, as it is to imagine the private owners of Gramercy park selling that charming enclosure to a street car company for a power house or storage barn. Public sen-

VISTA IN GRAMERCY PARK.

timent has been so cultivated during the past 25 years and there are such strong conservative influences at work in organized societies for municipal improvement that we are passing out of the state of indifference to amenities such as these and taking a most wise and proper thought for the future.

Suburban Parks for New York.

The preservation of the Palisades, to which allusion has been made, is a conspicuous illustration of taking Time by the forelock instead of by the fet-lock. To-day, the Palisades area may be called suburban. Fifty years from now it will be urban. New York is growing rapidly northward along the Hudson valley; Jersey City pushing northward along the valley west of the great trap-rock buttress; and half a century hence, the Palisades park, with its beautiful riparian drive, will be in the midst of the greatest aggregation of urban humanity on the face of the globe. Then, when property is worth—how much dare we say per acre?—benedictions will be spoken upon the names of the men and women, the commissioners and societies, the legislators and governors, who today have reserved that picturesque section for the delight of future generations.

The American Scenic and Historic Preservation Society hopes next winter the legislature will act favorably upon the proposition for the acquisition of Watkins Glen for a state reservation. Although this famous glen may be classified as rural scenery, it would be rash to predict that it would not some day lie within the limits of a thriving city; but, granting that it may always remain rural, such landscape features have their influence on neighboring and distant communities. If the inhabitants of a city ten, twenty or fifty miles away from a beautiful landscape or remarkable natural formation can be induced to visit it frequently, to study it, enjoy it and come to love it, the æsthetic culture which they have gained will inevitably express itself in some form in their own city life. The art instinct has been aroused and the eye and the mind cultivated, and they will not be content with unsightly and objectionable environments at home.

The State makes large contributions annually for the encouragement of agriculture by its appropriations to county agricultural societies for the exhibition of fat cattle, large chickens and big

cabbages; and why should it not appropriate fifty or a hundred thousand dollars for the gratification of the æsthetic instinct which calls for a free park that shall be thrown open not only to the farmers, but to the residents of neighboring cities and the still greater traveling public. The deterrent effect of a small admission fee, such as is charged at Watkins Glen, is greater than is generally imagined. According to the reports of the Niagara Falls State Reservation Commission, the number of visitors to Niagara quadrupled within the first year after the reservation was thrown open to the public. In 1888, the number was estimated at 300,000 and in 1900 at 750,000. Last year about 15,000 persons paid a half dollar apiece to enter Watkins Glen, not counting the guests of the hotel, who paid nothing. Taking this figure and the experience with Niagara as a basis, it is not difficult to form a rough

A SCENE IN WATKINS GLEN.
(Schuyler Co., N. Y.)

estimate of the extent to which the educational and æsthetic value of Watkins Glen might be multiplied by its conversion into a state park.

Next to the preservation of areas of natural attraction comes the adornment of artificial reservations and avenues. The protest which went up against the destruction by the rapid transit contractors of the double row of trees which gave Broadway, north of Fifty-ninth street, in New York city, its characteristic charm was an expression of the most natural and commendable jealousy of the City Beautiful. The protest of the Scenic and Historic Preservation Society against the defacement of a beautiful hill in Central Park

A NATURAL LAKE PRESERVED IN CENTRAL PARK.

by the same hands was another such expression. The citizens of New York, bereft of nearly every feature of natural landscape beauty, are jealous of every rock and tree and open space that is left. They are weary of paying for parks to be given away, for trees to be rooted up, for rocky knolls to be blasted to pieces.

Susceptibility of Children to their Surroundings.

In this connection, a word should be said in regard to the effect of trees, parks and sightly views upon children. The æsthetic education of a child begins, not when he is old enough to study art, but as soon as his senses begin to take cognizance of his environ-

ments. Surround a child with beautiful paintings, draperies and furniture and he will grow up to love them. Point out beautiful buildings to him as you walk along the streets with him, and he will quickly learn to discriminate in architecture. His love of trees, flowers and grass will instinctively manifest itself if he has access to parks, fields and woods. A young father, mother and child lived for six years close by Central Park, in which the mother and child spent several hours almost daily. Six months ago they moved to a new residence on Murray Hill, a mile from the Park, on an avenue devoid of trees. Since then the child, only six and a half years old, has over and over again expressed a longing for what she calls "the dear old park." This is a concrete illustration of the susceptibility of children to landscape impressions, which is confirmed by the experience of many.

Every movement for the beautification of municipal environments should take into consideration, not only the pleasure and gratification of the adult population, but the mold which is daily being given to the plastic minds of the children, into whose hands the destinies of the city will some day fall.

What There Is in a Name.

The society to which we have so frequently alluded in this article has entered a new field of municipal art in its department of nomenclature. It disagrees with the charming Capulet, who, in her specious argument with the Montagu, held that there was nothing in a name. On the contrary, it believes that the right name in the right place is essentially an ornament, and that a name appropriately bestowed upon a great thoroughfare, reservoir, bridge, or other important structure, can be made to possess all the attributes of a decorative monument. The true monument does something more than to mark a location or perpetuate a name. It possesses beauty of form and arrangement, it harmonizes with its surroundings and it appeals to the imagination. A milestone is an object of utility, but its usefulness is exclusively geographical. Numerical street names are useful, and perhaps indispensable for the majority of subordinate thoroughfares in a great city, but they afford no stimulus to the imagination. "Twenty-seventh street" is the first street north of Twenty-sixth street and the first street south of Twenty-eighth street, and noth-

ing more, so far as the name is concerned. But "Wall street"—what a difference! What a train of thought such a name sets up—a little Dutch settlement of the southern point of Manhattan Island; a wall of strong, pointed palisades across the island to keep out the Indians; the primitive life of the incipient metropolis, which then lay below the latitude of Trinity Church—and a host of other historical suggestions. Or "Maiden Lane," whose depression below the level of adjacent streets, in addition to its name, recalls the days when a little tree-shaded stream rippled merrily between grassy banks and afforded a delightful stroll for the pretty Dutch maidens and their not altogether unpoetic swains. On the northern side of Croton Point, Hudson river, is a crescent-shaped sandy beach which has one of the most exquisitely poetic names known to the writer. It is called "The Mother's Lap," or, more briefly, "The Lap," an appellation derived, it is said, from the Indians' designation of their favorite place for beaching their canoes. Could anything be more expressive of the combined ideas of rest, protection and safety for these children of Nature than "The Mother's Lap?"

A Protest against Larcenous Innovations.

It is hardly necessary to prolong the argument to demonstrate that there *is* something in a name, Juliet's assertion concerning the rose and its fragrance to the contrary notwithstanding. In its annual reports to the legislatures of 1900 and 1901, the American Scenic and Historic Preservation Society has made a strong plea for a suggestive nomenclature. It holds that the principal streets, bridges, reservoirs, parks and public buildings can be made to epitomize a city's history and perpetuate the memories of famous men and events or physical characteristics by means of appropriate titles intelligently selected. It also protests against the spirit of "larcenous innovation" which tends to obliterate time-honored names. While it concedes that in exceptional cases, like that of Sing Sing, (recently changed to Ossining on account of undesirable association with the notion of prison life), a departure from ancient nomenclature may be warranted, it holds that such changes should not be made from a light fancy or passing enthusiasm. Many of the oldest streets in New York have been rechristened in times of great political excitement as an evidence

of resentment against some obnoxious regime. Liberty street, formerly Crown street, and Pearl street, formerly Queen street, may be cited as illustrations of this class. Mercenary motives have led to many other changes, such as that suggested, but happily not consummated, a few years ago by those who could not see in the word "Bowery," so delightfully redolent of the smiling farms that once lined that famous thoroughfare, anything more suggestive than the once malodorous reputation of certain notorious sections of the East side. The tendency to yield to waves of temporary popularity is illustrated by the proposition, made just after the Spanish war, to change Elm street to Dewey avenue, in honor of the hero of Manila bay. The enthusiasm over Dewey having somewhat subsided, the city fathers proposed this year to call it Lafayette avenue—duplicating a name already in the vocabulary of the streets of Brooklyn borough. By next year, they may have settled down to the conclusion that it is wiser to leave it as it is. Perhaps the greatest value of these old names is reached when, like the Bowery, or Water street, (originally on the waterfront), they no longer represent existing physical conditions, but recall those which time and the march of "improvements" have changed.

No less important than the perpetuation of old names is the bestowal of appropriate new ones. In this direction, the Scenic and Historic Preservation Society now has open a public competition for the best names suggested for the four East river bridges already built or planned to be built in the near future, in the hope that these elaborate works, costing millions of dollars, may receive titles becoming to the importance of the structures and the dignity of the city. At present, New York has but fourteen bridges across the East river, Harlem river and Spuyten Duyvil creek, where she would have sixty or seventy if her bridges were as close together as the bridges of Paris. Some day, adequate provisions will be made for dry-shod communication between Manhattan, the mother borough, and her children, as well as between her and her neighbors on the Jersey shore, and then New York will be a city of many bridges. If such societies as the one of which we write, the Municipal Art Society, and kindred organizations, can have their way, these great works with their beauti-

ful architecture, their sightly approaches and their suggestive names, will materially contribute to the making of our City Beautiful.

GROWTH OF CITIES IN THE UNITED STATES: 1890—1900.

By Adna F. Weber.

Six months constitute a short period in which to expect a statistical office to complete a count of 76,000,000 people, to classify them in cities, towns, villages, etc., and publish comprehensive tables of results—even with the assistance of ingenious electrical tabulating machines like those in use in Washington. We shall, therefore, be obliged for the most part to confine our inferences as to the rate of urban growth in the latest decade to such deductions as can be drawn from the Census Bulletin containing the statistics of population of the cities of 25,000 or more inhabitants. The results may be checked and supplemented by the Bulletins treating the growth of population in the individual commonwealths.*

Brushing aside as devoid of interest to the general reader the rivalries of various localities for superior rank of rapid growth of population, we have to consider questions like these: Are cities growing more or less rapidly than in earlier decades? Are people still migrating from the rural districts to the cities; and if so, at what rate as compared with other years? Are villages still decaying while population crowds the metropolitan cities, or is the tendency away from the great centers toward suburban villages and cities?

Urban Growth Less Rapid.

To the first question a definite answer can at once be given. Urban growth between 1890 and 1900, measured by the progress of 159 cities of 25,000 inhabitants and upward, was not nearly so great

*Since this article was written the Census Bureau has published Bulletin No. 70, on "Urban Population." The later and more complete statistics contained in this Bulletin do not at all change the inferences here drawn from the earlier publications.

as in the preceding decade, 1880 to 1890. In fact, the rate of growth was fully one-third less, being 32.5 per cent. in 1890-1900 as contrasted with 49.5 per cent. in 1880-90. Some diminution in the mere rate of growth might have been expected, but so large a falling off is surprising. What is even more striking is the fact that the growth in actual numbers between 1890 and 1900 was smaller than that of 1880-1890, the two increments being respectively 4,839,136 and 4,921,562.

From facts like these some persons have hastily jumped to the conclusion that the movement of population from the villages and rural districts to the cities has ceased. From several newspaper editorials of this tenor, I select the following example:

"Census bureau bulletins on the population of the cities of the United States show that the great rush of people from country and suburban points to the large towns has been halted. . . . . During the last decade the cities have been well supplied with labor. The countryman and the foreigner have been absorbed, and the cities have apparently got down to a firm basis of growth. But better than that, the splendid increase in the value of farm products during the past four years, the increased advantages of sticking to the soil, and the many new openings for the farmer to invest his money profitably at home, have given the young man in the country a good reason why he should stay there. He has no longer to go to the city to make a livelihood. Hence the gradual halting of the gravitation toward the big cities. The 159 towns of the United States embraced in the current census bulletin show an increase of 32.5 per cent. during the last decade, or about *the average increase that will be shown for the entire country* by the present census. More than ever before in our history the city and the country are marching side by side and developing together. The balance has been struck and growth has become normal."

The fallacy in this reasoning is exposed by the words that I have italicized, namely, the assumption that the relatively low rate of increase of the city population (32.5 per cent.) is about the rate of the whole country. Until very recently, indeed, the decennial rate of increase of the country's population did exceed 30 per cent., but in 1880-90, the rate was 25 per cent. and in the latest decade it has fallen to 21 per cent. Consequently the cities are still growing 1 1-2 times as rapidly as the country at large; and it is by no means certain that "the balance has been struck and growth has become normal."

But the quotation is useful as indicating the proper method of estimating the relative growth of cities. Pursuing the method of comparing the urban rate of growth with the general rate, let us examine the following table:

(a) ENTIRE POPULATION.	North. Atlantic.	South. Atlantic.	North. Central.	South. Central.	Western.	Total U. S.
Number, 1900	21,045,748	10,445,486	26,335,243	13,687,901	4,091,349	75,605,727
Number, 1890	17,401,545	8,857,920	22,362,279	10,972,893	3,027,613	62,622,250
Increase 1890-1900—						
Number	3,644,203	1,587,566	3,972,964	2,715,008	1,063,736	12,983,477.
Per cent	20.9	17.9	17.7	24.9	35.1	20.7
Increase 1880-1890—						
Number	2,894,138	1,260,723	4,998,168	2,053,522	1,259,916	12,466,467
Per cent	19.95	16.59	28.78	23.02	71.27	24.86
(b) CITIES OF 25,000 IN 1900.						
Population, 1900	10,098,696	1,302,528	6,071,861	1,188,361	1,033,179	19,694,625
Population, 1890	7,585,202	1,091,221	4,482,829	939,790	756,447	14,855,489
Increase 1890-1900—						
Number	2,513,494	211,307	1,589,032	248,571	276,732	4,839,136
Per cent	33.1	19.3	35.4	26.4	36.5	32.5
Increase 1880-1890—						
Number	1,953,200	274,860	2,028,502	295,205	369,795	4,921,562
Per cent	34.6	33.6	82.6	45.7	95.6	49.5
Rate of city growth compared with growth of pop'lat'n taken as 100—						
1890-1900	158	108	200	106	104	157
1880-1890	173	203	296	198	134	199

Bulletin No. 70, published July 11, defines the urban population as the population of towns of 4,000 or more inhabitants and states the rate of increase since 1890 to be 36.8 per cent., as compared with 20.8 for the entire population, or as 177 to 100. The proportions in the several divisions of states, as arranged in the above table, would be as follows:

1890-1900	168	180	220	160	131	177

First, is it to be noted that the figures here given for the population of the United States in 1900 are not complete, since, in order to be comparable throughout the several geographical divisions with the census figures of 1890, they must not include Alaska, Indian Territory and Hawaii.*, There are no cities having 25,000

	1890.	1900.
Forty-nine States and Territories	62,622,250	75,605,727
Alaska	32,052	63,441
Indian Territory	180,182	391,960
Indian Reservations	145,282	.....
Hawaii	89,990	154,001
In military and naval service abroad	.....	89,670
Total	63,069,756	76,304,799

The increase is 13,235,043, or 20.9 per cent.

*The total population of the United States, exclusive of Porto Rico and the Philippine Islands, was 76,304,799 in 1900, and 62,979,766 (with Hawaii, 63,069,756) in 1890. distributed as follows:

inhabitants in either Alaska or Indian Territory and the single Hawaiian city of this grade (Honolulu, 39,306) has for some unexplained reason been omitted from the Census Bulletin of such cities. It is therefore allowable to omit these territories from consideration of the present problem and base our conclusions upon the table as above.

Secondly, to repeat a statement made in an earlier paragraph, the rate of growth of the 159 cities fell from 49.5 per cent. in 1880-1890 to 32.5 per cent. in 1890-1900, while the rate of increase of population in the entire country fell only from 24.86 to 20.7 per cent. In the former decade the cities grew twice as rapidly (199 to 100) as the country at large, and in the decade just closed only 1 1-2 times as rapidly (157 to 100).

Causes of Decrease.

Third. This check to the concentration of population is in large part a result of the bursting of the "booms" in Western cities. In the decade 1880-1890, the cities in the North Central States increased 82.6 per cent. in populaton; in 1890-1900, only 35.4 per cent.; and in the Western division, the rate fell from 95.6 to 36.5. But in the North Atlantic division the rate declined only from 34.6 to 33.1. In every one of the nine States in this division, the increase in actual numbers from 1890 to 1900 was larger than in the preceding decade, although the rate declined slightly in five of the States. In the Western division, Montana and Oregon were alone in having a larger increase in the city population in 1890-1900 than in 1880-1890, and in them the rates of increase declined very noticeably. And if the territory west of the Missouri river be isolated, it will be found that its city population increased about 20 per cent. in the recent decade as compared with over 100 per cent. in 1880-1890.

Such a contrast is not difficult of explanation, for it is generally known that the increase of population in 1880-1890 in such States as Kansas and Nebraska was a mushroom growth. This was particularly true of the cities which were built up on a much larger scale than the tributary territory required. The census of 1890 was taken almost at the height of the "boom" period and it is even said that the census was in some places fraudulently inflated. Such must have been the case, for example, in Omaha with a population of

30,518 in 1880, 140,452 in 1890 and 104,555 in 1900.* The grand result is that very few of the larger cities in the West (St. Louis and St. Joseph, Mo., being exceptions) show anywhere near the growth in 1890-1900 that they did in 1880-1890.

In the South also the rapid growth of urban population of 1880-1890 came nearly to a full stop.

In both of the great divisions, South Atlantic and South Central States, the urban rate of increase in the closing decade of the nineteenth century but slightly exceeded the general rate, whereas in the ten years from 1880 to 1890 the urban rate was twice as large as the average for the entire population of the States. This is more surprising when one recalls the extensive development of manufacturing industry that has recently taken place in the South. Here apparently is one instance in whch the growth of manufactures has not promoted the growth of cities.

But the evidence on this point is not complete for the reason that our present definition of city is, for want of more complete statistics, a place containing no fewer than 25,000 inhabitants. Now the great Southern seat of the cotton manufacturing industry is in North and South Carolina, both of which States have in recent years passed Maine, New York, New Jersey, Pennsylvania. North Carolina does not contain a single city of 25,000 people and South Carolina only one (Charleston). The numerous cotton mills in these States are scattered through small towns or villages. Just how populous these embryo industrial centers are cannot be determined until we have more census figures; but according to the reports of the North Carolina Bureau of Labor Statistics they do not appear to average more than a few hundred souls. From the Census Bulletin on Georgia, which ranks after North Carolina among Southern cotton manufacturing States, the writer has compiled a table which shows that the growth of industry has not favored the cities of 5,000, thus:

	Population.		Increase, 1890-1900.	
	1890.	1900.	Number.	Per cent.
(3) Cities of 25,000	142,022	183,557	41,535	29.2
(10) Cities of 5,000-25,000.....	86,737	98,888	12,151	14.0
(13) All places of 5,000	228,759	282,445	53,686	23.4

*Part of the decrease between 1890 and 1900, however, may be accounted for by the rapid rise of South Omaha, from 8,062 in 1890 to 26,001 in 1900.

The growth of manufactures did not therefore build up these smaller cities, for their increase was only 14 per cent. as compared with 20.6 per cent. for the entire State. Nor did the three larger cities (Atlanta, Augusta, Savannah) grow as much in 1890-1900 as in the preceding decade, the respective rates of increase being 29.2 and 57.7; while the population of the State as a whole increased by 20.6 per cent. in 1890-1900 as compared with 19.1 per cent. in 1880-1890. In Alabama the results are similar. In this section of the country, the growth of manufactures has not as yet produced the concentration of population that is so much discussed in Europe and the Eastern commonwealths of our country.†

In the North Atlantic States quite another condition of affairs is disclosed by the table. In that division the urban population increased by 2,513,494 in the latest decade as compared with 1,953,200 in 1880-1890; whereas in the remainder of the country the urban population increased only by 2,325,642 in 1890-1900 as contrasted with 2,968,362 in 1880-1890. The ratio of city growth to the general growth of population fell only from 173 to 158, while in the South Atlantic States it fell from 203 to 108. All through the Northern States, in fact, the concentration of population in cities is still proceeding very rapidly. Let anyone who thinks that the capacity of cities for absorbing the rural population has came to an end in the United States reflect upon the fact that of New York State's increase from 1890 to 1900 (1,270,159) no less than 90 per cent. was in the twelve cities of 25,000, leaving only 127,000 for the growth of all the smaller cities and towns, villages and rural districts. The metropolis alone absorbed three-fourths (944,611) of the entire gain, counting the annexed territory as a part of the city in both census years.

Résumé.—Cities of 25,000 inhabitants and upward grew much less rapidly in 1890-1900 than in the preceding decade. The falling off in their rate of increase was much greater than that of the country at large, with the result that the concentration of population progressed at a diminished rate. The cause of this lessening concentration was the collapse of a "boom" period in the Western, and possibly in the Southern, cities which had inflated their popu-

†Later statistics, however, indicate an exceedingly large increase in the urban population (towns of 4,000+) of North and South Carolina.

lation in 1890. The spread of manufacturing industry to the small towns of the South was also a factor. But on the other hand, the Northern cities grew with very little abatement from the rate of 1880-1890.

The Decline Not Permanent.

But because the rate of concentration was checked in the latest decade it does not follow that the check is a permanent one. Such checks have occurred before in the history of the United States and have been followed subsequently by concentration at an increasing rate. This is shown in the following table, previously published in "The Growth of Cities" (page 24) and now brought down to date:

	DECIMAL RATE OF INCREASE OF THE POPULATION.			RELATIVE RATES OF INCREASE			
	United States.	Urban Population.*	† 124 Large Cities.		United States.	Urban Population.*	† 124 Large Cities.
1800-10.....	36.38	69	51.1	1800-10.....	100	190	140
1810-20.....	33.07	33	36.4	1810-20.....	100	100	110
1820-30.....	33.55	82	52.0	1820-30.....	100	244	155
1830-40.....	32.67	68	61.6	1830-40.....	100	208	188
1840-50.....	35.87	99	82.2	1840-50.....	100	276	126
1850-60.....	35.58	75	60.8	1850-60.....	100	213	171
1860-70.....	22.63	59	46.9	1860-70.....	100	261	207
1870-80.....	30.08	40	38.8	1870-80.....	100	134	129
1880-90.....	24.86	61	47.7	1880-90.....	100	246	196
1890-1900....	20.7	37	33.8	1890-1900....	100	177	163

While the rate of growth of the larger cities was lower than in any previous decade, the same is to be said of the rate for the whole country. The ratio of the first rate to the second (33.8 to 20.7) was as 163 to 100; and while in 1880-90 this ratio was as 196 to 100, or 196 for short, in the preceding decade the ratio was 129. Again, in 1840-50 the ratio was 126.

As a matter of fact there has been a rhythmical movement about the concentration of population in the United States. No writer has ever called attention to it, but it appears very distinctly in the next to the last column of the above table: *the rate of concentration rises and falls in each alternate decade.* In 1810-20 the rate falls from 190 to 100; in 1820-30, it rises to 244; in 1830-40, it falls to 208; in 1840-50, rises to 276; in 1850-60, falls to 213; in

* Towns and cities having 8,000 or more inhabitants at each census.

† The 124 cities which in 1890 contained 25,000 or more inhabitants each.

1860-70, rises to 261; in 1870-80, falls to 134; in 1880-90, rises to 246; and in 1890-1900, it falls to 177. It were idle to prophesy what the rate is likely to be in the present decade, 1900-10; certainly, no one is justified in predicting a continued falling off in the rate of concentration simply because such a decline has occurred in the decade covered by the Twelfth Census,—unless one can discover new forces at work which promise to effect a decentralization of population.

Is such a force to be found in the suburban trolley? No more important question than this can be proposed; but the time is as yet too early to formulate an answer. The Massachusetts census of 1895 showed that the most rapidly growing cities were the suburbs of Boston. Since then, trolley lines have been greatly extended until they form almost a network of rapid transportation lines between municipalities and banish much of the isolation of rural and village life. Later, when the results of the census shall have been published in detail, it will be possible to determine the effects of these new transportation facilities upon the distribution of the population. For the present, the following table,* showing the distribution of population in New Hampshire will have to serve as indication of what is, apparently, the tendency throughout the United States:

	POPULATION.			DISTRIBUTION OF EACH 100 INHABITANTS.			
	A	B	C	A	B	C	D
1850.....	113,506	97,628	106,842	1850..... 35.69	30.71	33.60	100.00
1860.....	126,235	97,815	102,020	1860..... 38.71	30.00	31.29	100.00
1870.....	137,440	92,314	88,555	1870..... 43.18	29.00	27.82	100.00
1880.....	167,338	94,601	85,052	1880..... 48.23	27.26	24.51	100.00
1890.....	207,455	93,352	75,723	1890..... 55.10	24.79	20.11	100.00
1900.....	243,726	94,228	73,634	1900..... 59.22	22.89	17.89	100.00

A Towns of 2,000 or more inhabitants in 1890.
B Towns of 1,000-2,000 inhabitants in 1890.
C Towns of less than 1,000 inhabitants in 1890.
D New Hampshire.

We may regard these three classes of towns as the cities, villages and rural districts of New Hampshire. Now it appears that the latter (C) lost less ground in 1890-1900 than in the preceding decade, while the villages (B) actually gained 900 inhabitants. This gain, however, was not sufficient to enable the villages to

* From The Nation, Oct. 25, 1900.

maintain their ground and they now contain only 22.9 per cent. of New Hampshire's population as contrasted with 24.8 in 1890.

It is also clear that in 1880 a smilar check to the depopulation of villages and farms was revealed by the census. This check affected the population of the entire country, as has been already pointed out; and it strengthens the hypothesis that an important factor in the recent check to concentration of population was the industrial crisis. The long depressions of 1873-79 and 1893-97 have apparently been more severely felt by the cities than by the smaller communities.

Among the larger cities of the United States the rate of growth in the last decade of the nineteenth century has been surprisingly uniform, as is revealed in the following table from Census Bulletin No. 11:

	No. of Cities.	Population 1900.	Increase from 1890. Number.	Per Cent.	Increase Per Cent. 1880-1890.
Cities of 200,000.....	19	11,795,809	2,901,881	32.6	40.7
Cities of 100,000-200,000.....	19	2,412,538	603,882	33.4	79.2
Cities of 50,000-100,000.....	40	2,709,338	642,169	31.1	51.1
Cities of 25,000-50,000.....	83	2,839,933	706,524	33.1	68.6
Total.....	159	19,757,618	4,854,456	32.6	49.5

While in the decade 1880-90, conspicuous differences appear in the various rates of growth, in the latest decade such differences are almost infinitesimal; the growth is on the contrary, remarkably uniform throughout the four classes of cities. The largest cities ten years ago were being outstripped by the middle-sized cities, but that is no longer true. Judging from these statistics, one would say that modern Americans entertain the aspiration that Milton expressed when he wrote:

> "Towered cities please us then,
> And the busy hum of men."

But our metropolitan cities have assumed such gigantic dimensions that the evils of congested population are more and more forcing themselves upon public attention. The problem of housing such masses of men is bound to create trouble unless resolutely attacked. Fortunately our great metropolis has at last awakened to a sense of danger and has begun work on the only effective solution of the problem; namely, rapid transit from the business center to the residential outskirts. Adequate space for the housing of the people lies at the basis of all reforms. Other remedies are mere palliatives.

ANOTHER VIEW OF MUNICIPALITIES AND VICE.

[The December issue of MUNICIPAL AFFAIRS contained an article entitled "Municipalities and Vice." The writer's thesis was that in the present state of public opinion it is inadvisable to attempt to root out prostitution and that the efforts of city authorities should be devoted to the suppression of its outward manifestations and the protection of all citizens from involuntary contact with it, especially children and the poor in tenements. How this may best be done is a question of means to ends, as to which experience and experiment alone can determine. In other words, public sentiment does not demand that governmental agencies be used to abolish prostitution per se; and it certainly is not for a few, either within the administration or without, to say what is moral and undertake to enforce their views by law. Hence, until a majority are persuaded that prostitution ought to be wiped out *by governmental agency*, other means must be used to attain this end. However, there are two sides to this question, and we take pleasure in publishing the following article. The author, who has given social problems unusual thought and study, and who is thoroughly alive to our municipal needs, has requested that her name be withheld. It is not our custom to print controversial articles without signatures, but as the article called in question was written by the editor and as MUNICIPAL AFFAIRS is an open forum, we make an exception.—Editor.]

Conclusions are always wrong when any question involving human conduct is argued without regard to its moral aspects, for the simple reason that the premises are false. Morality is the most important factor in all questions of human conduct, and cannot therefore be ignored without destroying the force both of argument and conclusion.

The interesting article in the issue of MUNICIPAL AFFAIRS for December, 1900, upon "Municipalities and Vice," notwithstanding the value of some of its recommendations, is open as a whole to this condemnation, and the sum of its teaching is consequently wrong, being based on false premises.

Let us now take up the suggestions of this article seriatim, and attempt to add something to the answer of the question, "What should be the attitude of the city government—the people acting collectively—towards vice, and principally towards prostitution?"

Under the head of "Attempts at Remedies" are enumerated the various methods of dealing with the problem in Europe and America, and the two illegal methods of regulation adopted in certain American cities, "periodic fines" and "localization," are both very justly condemned. The reasons given against both systems are excellent, so far as they go.

But nowhere does the writer touch on the fundamental and unanswerable objection to both systems, viz.: the recognition that prostitution is a *necessary trade.*

The author appears to condemn the system of "Public Regulation," stating that it "has been only moderately successful even in Europe." He proceeds: "Medical inspection—perhaps the principal characteristic of the system—does lessen, but even when enforced does not entirely prevent it.* Even with the strong police power which foreign cities possess, it is extremely difficult to enforce the requirements of universal inspection, and there are always some who will not obey, preferring to take the chance of being found out."

The above reference to the Continental system is so far favorable that it would inevitably be accepted as an argument in its behalf by those who have not studied the subject, and herein lies the danger of the article under discussion. There is a mass of testimony in existence, however, showing that the Continental system, so far from having been even "moderately successful," has not only failed to diminish disease and check prostitution, but has so corrupted the moral sense of the communities which have adopted it that it has been the cause of an increase both of disease and vice. The reader is referred for confirmation of this statement to the following original sources:

From "An Inquiry Into the Causes of the Great Sanitary Failure of the State Regulation of Social Vice." Joseph Edmondson, Heath Avenue, Halifax, Yorkshire, 29th January, 1897:

The conspicuous failure of the sanitary regulation of prostitution in India, as set forth by copious quotations from official and other trustworthy documents in a recent pamphlet, strikingly corresponds with experience elsewhere. A body of

*The author is referring in the above sentence, of course, to venereal disease, and not to prostitution, since the whole system of public regulation is aimed not at the destruction of prostitution, but only to render it safe by the destruction of disease.

writers on the Continent of Europe, so fully acquainted with the system down to its minutest details that they may well be termed experts, and whose writings may be taken as "text-books" of the art of regulation, abundantly illustrate the fact of such failure is *essentially general*, and not merely *local*. Some of these writers belong to the medical profession and occupy important positions in the working of the system, while others are administrators who do not pretend to any medical skill, but who have a thorough and practical grasp of its operations and results. One of the latter, M. Lecour (for about fifteen years the chief of the *Police des Moeurs*, who carry out the system in Paris), summing up in 1870 the final results of eighty years' experience in that city, wrote: The administration has "redoubled its activity * * * and it has finally succeeded in maintaining the registered public women in a satisfactory sanitary condition."[1] And yet "prostitution is increasing and becoming more dangerous to the public health."[2] The writings of the other experts, though not so outspoken, are uniformly incompatible with anything but a precisely similar state of things in the cities of which they individually speak, viz., *increased and increasing danger, side by side with increased stringency and more perfect arrangements*. * * *

Even after years of unsuccessful result it was still hoped that with increased care and greater stringency the desired end might be attained. But there can be no doubt that the outcome was a failure.[3] * * *

In Paris the efforts to make the *cordon* all-inclusive have been prodigious, and yet, according to M. Lecour, eighty years' experience had not devised means by which more than one-eighth of the estimated number of prostitute women could be brought within the "riskless" enclosure. This difficulty and the means, if any, by which it may be overcome, form the great theme of all the experts. Though differing somewhat in their estimate of its precise extent, the Continental experts are absolutely unanimous as to their ridiculously small success in this, the merely preparatory step towards the attainment of their object. Dr. Mauriac writes so recently as 1896: Although "the medical inspection of licensed brothels and of regulated prostitution * * * is conducted by a numerous, well-trained and experienced staff, how many cases both in Paris and the provinces escape their vigilance! Its efficacy * * * only covers a relatively small number of cases, and this number decreases more and more.[4] * * *

M. Lenaers, speaking from his own experience as chief administrator of the system at Brussels, reported to the city council that "the inscription on the rolls of prostitution is an exceedingly grave and delicate matter when we consider the position in which it places the woman who is the object of it, for while this inscription is a purely administrative act, the object of which is to compel the habitual prostitute to submit to the examination, none the less does it inflict on the woman a patent of infamy and degradation, and exercises a disastrous and fatal influence on her future life.[5] * * * The head of the police in Berlin, in an administrative report for the decade 1881-90, acknowledges that the registration of prostitutes,

[1] Lecour, "La Prostitution à Paris et à Londres," Paris, 1870, p. 225.

[2] Ibid., p. 254.

[3] "Memorandum by the (British) Army Sanitary Commission on the Statistics of Veneral Disease Among British and Native Troops in India for the Year 1892," in Parliamentary Paper No. 318 for 1895.

[4] "Traitement de la Syphilis," par Charles Mauriac, Médecin de l'Hôpital Ricord (Hôspital du Midi). Paris, 1896, p. 62.

[5] "Report on the Project for Regulating Prostitution in Brussels," presented to the College of the Burgomasters and Aldermen by M. Lanaers, Commissary of Police, 6th August, 1877.

with its consequences, horribly aggravates their abject condition. * * *

In Hong Kong, too, it was authoritatively stated, while the system was in force, "that the number of women caught under the sanitary regulations has always been, as compared with those left unregulated, insignificant." The same authority also pointed out that the objection of the Chinese prostitutes to submit to the examination was so intense that it could be inflicted only on *the lowest class*, found solely in brothels for Europeans. It was impossible to enforce it in those for Chinese and other Orientals, in which it had to be completely abandoned. * * *

From a publication issued by the British Committee of the International Federation for the Abolition of State Regulation of Vice. Office, 17 Tothill Street, Westminster, S. W. December, 1899. Second Edition, July, 1900:

An "International Conference for the Prophylaxy of Syphilis and Venereal Maladies" was convened in the autumn of 1899, and sat at Brussels from September 4th to 9th. The letter of invitation stated that:

The constantly increasing propagation of syphilis and venereal maladies is become a serious danger for society. It is necessary whilst there is yet time to take measures to attempt to arrest the invading march of this plague. It is with a view of grouping and unifying all efforts that a committee has been formed, and has decided to organize an international conference for the prophylaxy of syphilis and venereal maladies. * * *

The Conference was probably the largest, most complete and most weighty of its kind ever held. The following Governments appointed representatives: Germany, Austria, Bosnia, Brazil, Bulgaria, Chili, Denmark, Spain, the United States of America, France, England, Honduras, Hungary, Italy, Japan, Mexico, Norway, Paraguay, Persia, Peru, Holland, the Argentine Republic, Roumania, Russia, Servia, Sweden, Switzerland and Belgium. These delegates included nearly all the great regulationist leaders of the world. * * *

The following are the six questions which formed the programme of the Brussels Conference, and which accompanied the letter of invitation:

1. Have the systems of regulation, actually in force, had an influence upon the frequency and dissemination of syphilis and venereal maladies?

2. Is the present organization of the medical surveillance of prostitution capable of improvement?

3. Exclusively from the medical point of view, is there any advantage in maintaining the *maisons de tolerance*, or would it be better to suppress them?

4. Is the administrative organization of the police surveillance of prostitution capable of improvement?

5. By what legal measures can the number of women who derive their means of existence from prostitution be diminished?

6. Leaving prostitution out of the question, what general measures can be taken effectually to combat the propagation of syphilis and of venereal maladies?

The debate on the first question (as to the success of regulation in preventing disease) was particularly important, as raising the whole question of the general success or failure of regulation. After nearly two days' discussion no conclusion was come to. The *British Medical Journal* of Sept. 9th, 1899, said:

---

* Report of Commissioners appointed to Inquire Into the Working of the Contagious Diseases Ordinance, 1867," Parliamentary Paper 118 of 1880, p. 63.

"The sitting was adjourned at 1.35 p. m. (on the second day), no decision of any kind having been arrived at, the discussion having revealed the greatest differences of opinion and the utter absence of any trustworthy data for the formation of sound conclusions."

Another equally important debate arose on the following resolution of Professor Petersen, one of the delegates of the Russian Government, in favor of regulation: "The sanitary surveillance of prostitution is one of the most important means for diminishing the propagation of syphilis and venereal maladies." * * *

The end of the fight on this resolution was that the question was again not put to the vote.

The following were the resolutions actually carried:

1. The Conference desires to see the various Governments use all their powers to suppress absolutely prostitution of girls under age *(en etat de minorité civile)*.

2. The Conference desires to see the present meeting serve as a basis for the foundation of a society for sanitary and moral prophylaxis, having its centre in Brussels, which will show its vitality: (a) By the creation of a quarterly journal for the publication of reports and papers of interest concerning the said society; (b) By Congressional meetings,

3. The Conference, esteeming that a thorough knowledge of Venereology constitutes one of the most important means for effectually counteracting the spread of venereal maladies, urgently recommends the Governments to ensure the future competence of the Medical Profession in this matter by the institution, in every university, of complete and compulsory courses, the subject of which shall form part of the State examinations. The Conference asks that the examiners may be specialists.

4. (a) It is necessary that orphans should be better protected. For this purpose, the choice of guardians should be guided not only by the desire to defend the material interests of the children confided to their charge but above all by the necessity of assuring their moral welfare.

(b) Whoever has charge of the education of the young ought to apply all his care to the moral development of his scholars; he should carefully instruct them in temperance and in respect for all women, whatever may be their social position.

5. The Conference calls for the utmost severity of the law against *souteneurs* (men living upon the earnings of prostitutes).

6. The Conference asks the Governments to appoint in every country a commission:

(1) To determine the frequency of venereal maladies in the civil population, apart from temporary variations.

(2) To enquire into the institutions actually existing for the treatment of venereal affections; the distribution of hospitals; the number of available beds in the different localities; and to propose the most efficacious means for the treatment of these maladies.

(3) To collect the various opinions relative to the best means of preventing and limiting the spread of venereal maladies in the civil population, and to formulate suitable conclusions on the subject.

7. The Governments are requested to seize every suitable opportunity to call the attention of the public, and above all of young people, to the dangers of prostitution to the health of both sexes, and to the baneful results of venereal diseases.

8. The Conference desires to see the venereal statistics of all countries arranged upon a uniform basis.

When these resolutions are compared with the six questions of the programme, and when it is remembered that a resolution in favor of Regulation was, after discussion, withdrawn, it will be seen how completely the Regulation system failed to obtain the support of the Conference; and further, when the composition of the Conference and the character of those attending it is considered, it is obvious the results are of the most encouraging character, and show how confidence in the Regulation system is decaying among the scientific community of the civilized world.

Mr. Jonathan Hutchinson, the eminent English specialist, said at the Brussels conference above referred to (From the *Inter-State Medical Journal*, U. S. A.):

The resolution (Leaving prostitution out of the question, what general measures can be taken effectually to combat the propagation of syphilis and of venereal maladies?) is specially interesting to me, because I believe it is almost the only one which can be made practical. I believe at present it would be quite impossible to trust anybody with the regulation of prostitution, or to carry such a law out effectually, even if that were possible. * * *

There seems to be great exaggeration as regards the prevalence of hereditary syphilis in England. During the last ten or thirteen years in England, the deaths from inherited syphilis have been greatly reduced in the proportion of from seventeen to twelve, i. e., a reduction of more than a quarter, or nearly a third.[1] * * *

There is a largely spreading feeling in England amongst those who are not religious in favor of the endeavor to advance in our respect for women and our regard for the rights of women of all classes of society, and a desire not to assist in the degradation of any one class as a source of enjoyment to the other. * * *

There is a growing feeling in England on this subject, and I am glad to see that there is in our medical schools, as in all departments of life where educated young men meet, a very great increase of the sense of responsibility in these matters. The state of medical students as regards this is far in advance of what it was a quarter of a century ago, and that feeling extends to our colleges also.

We ought not to do anything which would consign to degradation a large number of young, inexperienced women of that class which specially require sympathy and education. The attempt to establish moral responsibility by attention to temperance, athletics, industry, so far from favoring the degradation of any race, would tend in every way to enable humanity to advance the true interests of our race.

Under the heading "WHAT THE CITY SHOULD DO" the author indorses the recommendations of the Tenement House Commission aimed at the evil of prostitution carried on in tenement houses, and adds a very valuable one of his own, intended for the special protection of young girls. He says: "Possibly it would be wise to provide by statute and police ordinance for fine and imprisonment of any woman under twenty-one years of age who is given to prostitution, of the keeper of the brothel in which she is and of the man

[1] The system of "Public Regulation" has never existed in England except in garrison towns, and in these it was in force only for twenty-two years, from 1864 to 1886.

customer concerned." There can be no doubt that such a law would have a most salutary effect, except that the punishment should not include a fine. A fine does not prevent evil, and, as the author himself says elsewhere in this article, "is only one degree removed from secret blackmail." A fine acts always as a license fee and permits the offender to repeat his offense, provided he is ready to pay for the permission. Therefore, if the object is to prevent and to stop a certain offense against the law, the person who offends should be put where he cannot repeat his offense. In the case of prostitutes this is especially imperative, because their only means of paying a fine is by money earned by prostitution.

It is necessary to protest also against another recommendation of the author, that every prostitute "might be required to show upon application a card containing her photograph and residence, and a statement, signed by the proper authority, certifying that she was over twenty-one years of age, and that she reported regularly her desire to remain a common woman." This is open to many of the objections already urged against "public regulation," and could not fail to have a most debasing effect upon public morals, for it would be equivalent to the giving of licenses to women over twenty-one to carry on the "trade" of prostitution.

To find the cure for the flagrant evils of public prostitution it is necessary to study its causes. In New York and probably in all American cities they are somewhat as follows:

The foundation cause is of course the "double standard" of morality for men and women, and the widespread false opinion that the indulgence in vice is a necessity for men. Other causes are:

1. The corruption of the police department.

2. The temptations so freely offered to girls and boys and to men; the shows around the crowded neighborhoods, for instance, which stimulate evil imagination, the saloons, etc., which are only another symptom of police rottenness, however.

3. The low moral tone, both of landlords and tenants, the former being ready to share in the profits of vice, the latter being unwilling to protest against it.

4. The love of money and greed of gain.

5. The failure of police and magistrates to deal rightly with men and with women when arrested. The men arrested in "raids" upon

brothels are all discharged upon giving false names and addresses. If they were taken into court and subjected to the public disgrace they deserve, many who perhaps are more foolish than depraved would fear to run the risk of entering brothels, and would thus be saved from both temptation and sin, and the trade would consequently be less lucrative to the women and to their masters.

The women also are wrongly dealt with. Fining only forces them to continue in the life, when the object should be to remove them from it, and to reform them if possible. To fine them is to bind them to it—they have only the one means of earning money—and they pay their fines by past sin, or if some one pays for them, they become more irrevocably enslaved to bad men. It would be better to make no arrests at all than to impose fines on these women. Commitment for six months to a prison would at least be a *punishment*, which the fine is not.

It is not necessary to commit to prison, however, if the women themselves can be persuaded to enter some of the "homes" which are ready to receive them, and where they will be helped to reform and later to find employment. The Magdalen Asylum, the House of the Good Shepherd, the House of the Holy Family, the Salvation Army Home are some of these in New York City.

The police, the magistrates, the institutions should all join in trying to deliver the women from the life of sin, and in trying to reform them. Probation officers and court officials (all women) should be nominated by the various institutions interested in such work to go with the police when arrests are made, and try on the spot to persuade the women to go to one of the homes named, and the magistrates should in such cases suspend sentence, and allow the institutions the opportunity to deal freely with such women. When the offer of such a refuge is refused, the women should be committed to a reformatory, and where they appear to be incorrigible, to prison for the longest term possible.

Police officers should not be authorized to enter brothels except upon the complaint of a householder and accompanied by at least one independent witness—this in order to save them from the temptation to blackmail and the danger of being blackmailed. It is to be remembered that the protection of the moral character of the individual police officer is one of the most important things to

be provided for in any plan of dealing with the subject of prostitution. The methods heretofore employed in New York City, and all systems of license, whether legal or by the use of the fining system, are absolutely demoralizing to the men who enforce them.

Much more severe punishment should be inflicted than is now possible upon the men and women who live upon the earnings of prostitutes, men and women who simply for greed of gain drive the wretched victims to a life which many of them loathe, and which brings them only misery and death.

The whole difficult problem of prostitution involves education in many different aspects, and a large number of invaluable suggestions, both as to the causes and the remedies for prostitution, are to be found in an address on "Rescue Work in Relation to Prostitution and Disease," given at a conference of rescue workers, held London, in June, 1881, by Dr. Elizabeth Blackwell, and republished by her in a collection of "Essays in Medical Sociology" in 1899. From this address the following are extracts:

Let me now lay bare to you the root of the whole evil system, because, as a physician acquainted with the physiological and pathological laws of the human frame, and as one who has lived through a generation of medical practice amongst all classes of the community, I can speak to you with a positive and practical knowledge rarely possessed by women. The central point of all this monstrous evil is an audacious insult to the nature of men, a slander upon their human constitution. It is the assertion that men are not capable of self-control, that they are so inevitably dominated by overwhelming physical instincts that they can neither resist nor control the animal nature, and that they would destroy their mental or physical health by the practice of self-control. * * *

Now I say deliberately, speaking as a Christian woman, that such a statement and such a belief is blasphemy. It is blasphemy on our Creator, who has brought our human nature into being, and it is the most deadly insult that has ever been offered to men. Do not accept this falsehood. I state to you as a physician, that there is no fact in physiology more clearly known than the constantly increasing power which the mind can exercise over the body, either for good or evil. * * *

If you let corrupt servants injure your little children, if you allow your boys and youths to practice self-abuse and fornication at school and college, if you establish one law of divorce for a man and another for a woman, if you refuse to protect the chastity of minors, if you establish brothels, prostitutes, and procurers, you are using the power of the mind over the body for evil. You are, indeed, educating the sexual faculty, but educating it in evil. Our youth thus grow up under the powerful influence of direct education of the sexual instincts in vice; but so far, even in our so-called Christian civilization, we are ashamed to attempt direct education of those faculties for good.

I have made the above remarks as bearing directly on the subject of disease, as well as to call your attention to the proper place which "rescue work" must oc-

cupy in humanitarian work. As prostitution is the direct result of unbridled licentiousness, you may as well attempt to "mop up the ocean" as attempt to check prostitution, unless at the same time the root of the evil, viz., licentiousness, is being attacked. Let it be distinctly understood, however, that I would encourage, not discourage, rescue work. I honor the self-denial and beneficence even of those who cannot see the source of the evil they are trying to mitigate; but I would much more strongly encourage those who, being engaged in this work, do at the same time clearly recognize that the warfare against licentiousness is the more fundamental work; and who, whilst themselves engaged in rescue work, bid God-speed and give substantial encouragement to all others who are directly engaged in the great struggle against every form of licentiousness—against every custom, institution, or law that promotes sexual vice. Such earnest rescue workers are not simply mopping up the ocean, they are also helping by their encouragement of other fundamental work to build up a strong dyke, which will resist the ravages of destructive evil forces. Thus, any efforts that can be made to teach personal modesty to the little boys and girls in our board schools all over the country form a powerful influence to prevent prostitution. Attention to sexual morality in educational establishments everywhere, in public and private schools and colleges, amongst young men and young women, is of fundamental importance. Also efforts to secure decency in the streets, in literature, in public amusements, form another series of efforts which make a direct attack upon licentiousness, and cut away another cause of prostitution. Again, the abolition of unjust laws and the establishment of *moral* legislation form another series of effort, and a vital attack upon the roots of prostitution. Always remember that the laws of a country possess a really terrible responsibility through the way in which they influence the rising generation. Inequality between the sexes in the law of divorce, tolerance of seduction of minors, the attempt to check sexual disease by the inspection of vicious women, whilst equally vicious men are untouched, all these striking examples of the unjust and immoral attitude of legislation will serve to show how law may become a powerful agent in producing prostitution through its direct attitude towards licentiousness. * * *

These diseases are called the diseases of vice, because they spring directly from the promiscuous intercourse of men and women. Syphilis never arises from the single union of a healthy man and woman. We do not know the exact conditions under which promiscuity produces these diseases. Dirt and excess of all kinds favor their production; but we also know that, however apparently healthy the individuals may be who give themselves up to indiscriminate debauch, yet these diseases will speedily arise amongst them. Now, I wish to point out with emphasis (to you who are engaged with the criminal classes) this chief originating cause of disease, viz.: promiscuity. * * *

Ask yourself whether any particular legislative act tends to check licentiousness in both men and women; if not, it is either useless or injurious to the nation because it does not check that source of constantly increasing danger, viz.: promiscuity. The effect of brothels and contagious diseases acts, of establishments and laws which do not tend to check promiscuous intercourse, is to facilitate, not stop, such vice, and cannot eradicate the diseases of vice which spring from such intercourse. The futility of any system which leaves the causes of disease unchecked, and only tries to palliate its effects, is evident. The futility of such a false method would remain, even if it compelled the inspection of vicious men as well as women. But when a system attempts only to establish an examination of women, leaving men uninspected, and allowing free scope to the licentiousness of all, it becomes a direct encourage-

ment to vice. It tends to facilitate that brutal custom of promiscuous intercourse without affection and without responsibiliies, which is the disgrace of humanity—the direct source of physical disease as well as of measureless moral evil.

But I do not advocate letting disease and vice alone. There is a right way as well as a wrong way of dealing with venereal disease. I consider that legislation is needed on this subject. * * *

A law which makes it a legal offence for an individual suffering from venereal disease to hold sexual intercourse with another person, and a ground for separation, is positively required in order to establish a true principle of legislation, a principle of just equality and responsibility which will educate the moral sense of the rising generation and protect the innocent. Any temporary inconveniences which might arise before the wisest methods of administering the law had been established by experience, would be as nothing compared with the elevating national influence of substituting a right method of dealing with the diseases of vice for the present unjust and evil method. The first direct means, therefore, for checking venereal disease is to make the spreading of this disease a legal offence.

Secondly, a necessary regulation to be established in combating the spread of this disease is its free treatment in all general dispensaries and hospitals supported by public or charitable funds. Such institutions have hitherto refused to receive persons suffering from disgraceful diseases, or have made quite insufficient provision for them. This refusal or neglect has left venereal diseases more uncared for than ordinary diseases. * * *

Whilst thus advocating the careful framing of a law to make communication of venereal diseases by man or woman a recognized legal offence, and whilst insisting upon the claims of this form of physical suffering to free treatment in all general medical charities, I would most earnestly caution you against the dangerous sophism of attempting to treat women as prostitutes. Never do so. Never fit women for a wicked and dangerous trade, a trade which is utterly demoralizing to both men and women, and an insult to every class of women. The time is coming when Christian men and women will see clearly that this hideous traffic in female bodies, this frightful danger of promiscuous intercourse, must be stopped. * * *

To return, in closing, to the article under review: The author would undoubtedly explain his omission to consider the moral aspects of the relation of municipalities to vice by saying that he was looking only at the possibilities of legal control, and it is evidently his belief that statute law should follow rather than precede moral movements, or rather, that he goes even so far as to believe that law should not prohibit or punish anything which the majority approve, no matter how wrong the majority may be. There is, of course, a certain amount of reason in this position. It is true that men cannot be made virtuous by law. It is equally true, however, that men can be greatly helped by law to act virtuously. It is also true that men can be made vicious by law, and in the present connection this last truth is of immense importance, for in all movements to settle the relation of municipalities to vice the danger is not that an attempt will be made to impose too high a standard of

conduct upon the people, but that laws will be passed which accept a very low standard, laws which would be directly applicable only to a very small part of the people, but which would have a disastrous influence upon the morals of all.

It is as if one had charge of a growing child with a deformed leg which needs support. The question is what kind of a support shall be used? It would, of course, be impossible to make a frame suitable for a normal limb, but it would be cruel folly to clamp the deformed leg into a frame exactly fitted to its actual size and condition, for that would serve only to distort it still more, and would eventually end in the death of the child. Three objects must be considered in planning the frame: the support immediately needed, room for the leg to grow, and help to force it to grow straight. The support must be changed constantly, and must always have reference to the distorted condition of the limb, but it must always be constructed with a view to future improvement, and above all, the ideal of the normal, healthy limb must ever be present to the mind of the surgeon who plans the appliance.

It is exactly so in the case of human laws. They must not be too far removed from the actual state of moral development of the people, but they must always look towards improvement, and they must never be opposed to the higher law.

Law has a tremendous power of education, especially upon the young, and to condemn the race to the loss of the influence of laws nobler than the current morality would be to surrender one of the instruments that have been most potent since history began in lifting men to higher planes of thought and conduct.

No doubt morality and religion are the only "sure foundation" for noble conduct, but morality and religion embodied in law have always had a tremendous influence in moulding the character of nations.

The great law-givers of the race have never dwarfed their standards to those of the majority. Moses, Solon, Numa, Alfred and the countless others who have helped the race onward by means of noble laws, have not followed in the rear, but have led far in advance, embodying in statutes for the careless and immoral throng the highest morality they have themselves received from God.

FRANCHISE TAXATION IN ILLINOIS.

By Hiram B. Loomis.

The word franchise has a much broader meaning than people ordinarily give it. Speak to a man of franchises and he straightway thinks of the special privileges our street railway, gas, telephone and electric lighting companies have obtained from city councils to use the public highways. In its legal sense, however, articles of incorporation constitute a franchise. A corporation for baking bread, making shoes, or selling groceries has a franchise in this sense of the term just as truly as a railroad or telephone company. The Illinois franchise tax is really a corporation tax; but this article will be confined to a discussion of the taxation of companies which have franchises in the popular as well as in the strictly legal sense of the term.

Legislation.

Under the laws of Illinois any body of persons, by making the proper application and paying the fixed fees, may incorporate as the —— railroad or gas or telephone company. They may then do business in their corporate name, may sue and be sued as a corporation; their company is a person before the law. They have now a franchise in the legal sense of the term; but they are not yet able to run street cars or to furnish gas or telephone service. Before they may do these things they must go before the legislative body of some state or municipality and get the privilege of using a narrow and continuous strip of land on which to lay their rails or pipes or string their wires.

For the taxation of such corporations the Illinois state constitution has the following special provision (Art. 9, Sec. 1):

"But the General Assembly shall have power to tax . . . . . and persons or corporations owning or using franchises or privileges, in such manner as it shall, from time to time, direct by general law, uniform as to the class upon which it operates."

To put into effect the various constitutional provisions on taxation the state legislature, on March 30, 1872, passed a general revenue act, which contained the following provisions bearing especially on our subject (Section 3, Clause 4):

"The capital stock of all companies and associations, now or hereafter created under the laws of this state, shall be so valued by the State Board of Equalization as to ascertain and determine, respectively the fair cash value of such capital stock including the franchise, over and above the assessed value of the tangible property of such company or association. Said board shall adopt such rules and principles for ascertaining the fair cash value of such capital stock as to it may seem equitable and just; and such rules and principles, when so adopted, if not inconsistent with this act, shall be as binding and of the same effect as if contained in this act, subject, however, to such change, alteration, or amendment as may be found, from time to time, to be necessary by the board: Provided, that, in all cases where the tangible property or capital stock of any company or association is assessed under this act, the shares of capital stock of any such company or association shall not be assessed or taxed in this state. This clause shall not apply to the capital stock or shares of capital stock of banks organized under the general banking law of this state."

Section 32.—"Companies and associations incorporated under the laws of this state (other than banks organized under the general banking laws of this state) shall, in addition to the other property required by this act to be listed, make out and deliver to the assessor a sworn statement of the amount of its capital stock, setting forth, particularly—

First—The name and location of the company or association.

Second—The amount of capital stock authorized, and the number of shares into which such capital stock is divided.

Third—The amount of capital stock paid up.

Fourth—The market value, or, if no market value, then the actual value of the shares of stock.

Fifth—The total amount of all indebtedness, except the indebtedness for current expenses, excluding from such expenses the amount paid for the purchase or improvement of property.

Sixth—The assessed valuation of all its tangible property."

The only point calling for explanation in this schedule is the fifth item. Translated into colloquial English this would read, the total amount of the bonds or bonded indebtedness.

As there is a widespread feeling that the taxation of indebtedness is a peculiar proceeding, a word of explanation of this particular case may not be out of place. The bonds of a railroad or other corporation are of the nature of a mortgage on its property. Suppose a man has a house and lot whose market value is $5,000. If it is mortgaged for $2,000, he will get only $3,000 for his equity at a fair sale; but the value of the house and lot equals the mortgage plus the equity. In like manner, if a person should buy up

all the stock of a railroad, he would have bought only the company's equity; the bondholders would still have their mortgage upon the property. In order to become absolute owner he would have to buy up all the bonds as well as all the stock. As the end to be attained is to find the value of the franchise by subtracting the value of the tangible property from the total value of the property, we should evidently take for the total value the value of all the stock plus the value of all the bonds.

Sections 40 to 52 of the law relate especially to railroads. The plan for taxing railroads is as follows. There are three separate valuations:

First. A valuation of such real esate and personal property as is distinctly local by the local assessor.

Second. A valuation of the track and right of way, including depots, buildings and other improvements on it, and of all rolling stock and other personal property which is not local by the state board of equalization. These two constitute the tangible property of the company.

Third. A valuation of the "capital stock, including the franchise, over and above the assessed value of the tangible property" by the state board of equalization.

Attitude of the Courts.

In reference to the assessments made by the board of equalization the Supreme court of Illinois has held (The Pacific Hotel Company *vs.* Herman Lieb *et al.*, 83 Ill. 606):

"The State Board of Equalization, in assessing this class of property, does not act as a board of review, as it does with respect to other kinds of property, but as an original assessor."

And again:

"In our opinion, neither the neglect of the local assessor nor that of the corporation, nor both, can excuse the Board of Equalization from its duty to value the capital stock of all companies and associations created under the laws of the state, provided it can otherwise get satisfactory information for that purpose; and of this, from the nature of its organization, it must necessarily be the judge."

In 1873, in acordance with the powers granted it by the statute, the board of equalization made the following "rules and principles for ascertaining the fair cash value of the capital stock:"

"Resolved, That for the purpose of ascertaining the fair cash value of the capital stock, including franchises, of all companies and associations now or

hereafter created under the laws of this state, and for the assessment of the same or so much thereof as may be found to be in excess of the assessed or equalized value of the tangible property of such companies and associations respectively, we, the State Board of Equalization, hereby adopt the following rules and principles, viz:

"1st. The market or fair cash value of the shares of capital stock and the market or fair cash value of the debt, excluding from such debt indebtedness for current expenses, shall be combined or added together, and the aggregate amount so ascertained shall be taken and held to be the fair cash value of the capital stock including the franchises respectively of such companies and associations.

"2d. From the aggregate amount ascertained as aforesaid there shall be deducted the aggregate amount of the equalized or assessed valuation of all the tangible property respectively of such companies and associations, such equalized or assessed valuation being taken in each case, as the same may be determined by the equalization or assessment of the property by this board, and the amount remaining in each case, if any, shall be taken and held to be the amount and fair cash value of the capital stock, including the franchise, which this board is required by law to assess respectively against the companies now or hereafter created under the laws of this state."

This method of ascertaining the total value of the capital stock, including the franchise, has been sustained by the supreme courts of the State of Illinois and of the United States. In the case of Porter *et al. vs.* R. R. I. and St. L. R. R. Co. (76 Ill. 592), the Supreme court of Illinois said:

"Nor are we able to see any reason why the aggregate market value of all the shares of a corporation, representing as it does the estimate put, not merely on the property of the corporation, but also on the rights, privileges, capacities and present and prospective results of the corporate organization and business—in other words, on its franchise—is not a legitimate and just method of arriving at a basis on which to calculate an excise or tax. Inasmuch as the market value of the shares is generally a sure indication of the value of all that appertains or belongs to the corporation, corporeal and incorporeal, the aggregate market value of all the shares of stock affords a reasonable and equitable mode of measuring the value of the franchise. It certainly furnishes a more accurate standard than the capital of a corporation actually paid in or than the amount of corporate business transacted during a specific period. A tax graduated on the amount of capital paid in may operate unequally and inequitably, because the capital may be impared by losses or greatly increased by profits. The amount of business done in a given period may not always furnish a true standard of the value of corporate privileges, because it may sometimes be carried on disadvantageously and without gain, and at other times with great success and profit. But the market value of the shares, taken in the aggregate, at the time of assessing the tax would be likely to show, with approximate accuracy, the actual existing value of the rights, privileges and benefits conferred by the franchise."

In the State Railroad Tax cases (92 U. S. 601), the Supreme court of the United States said:

"The statute of Illinois and the rule adopted by the Board of Equalization may not be the wisest mode of doing complete justice in this difficult matter; but we confess we have, on the whole, seen no scheme which is better adapted to effect the purpose, so far as railroad corporations are concerned, of taxing at once all the property, and of making the tax just and equal in its relation to other taxable property of the state."

And later, speaking of the assessment of the bonds:

"These mortgages are, however, liens on the road, and, taking precedence of the shares of the stockholders, may or may not extinguish the value of his shares. They must in any event affect that value to the exact amount of the aggregate debts, for all that goes to pay that debt and its interest diminishes pro tanto the dividends of the shareholder and the value of his shares.

"It is therefore obvious that, when you have ascertained the current cash value of the whole funded debt, and the current cash value of the entire number of shares, you have, by the action of those who above all others can best estimate it, ascertained the true value of the road, all its property, its capital stock and its franchises; for these are all represented by the value of its bonded debt and of the shares of its capital stock."

Statutes Nullified.

The state law is clear; the first rules of the board of equalization, which were not changed until the present year,* were explicit; and the courts, both state and national, have sustained the law and the rules. It would seem that the advocates of the franchise tax could ask nothing more in the way of legislation.

For twenty-eight years it has been put to the test of experience.

*Following is the text of the new rule adopted November 22. 1900:

"Resolved, That for the purpose of ascertaining the fair cash value of the capital stock, including the franchise, of all companies and associations now or hereafter created under the laws of the state, and for the assessment of the same, or so much thereof as may be found to be in excess of the assessed or equalized value of the tangible property of such companies and associations respectively, we, the state board of equalization, hereby adopt the following rules and principles, viz.:

"1. The capital stock of each said company or association shall be valued as an entity, due consideration being given to the following propositions: (a) To the character and duration of the franchise of said company or association. (b) To the amount of the contribution, if any, demanded of and paid by said company or association under the provisions of any contract or ordinance to any municipality as compensation for the use of its franchise privileges in said municipality. (c) The highest and lowest quotation of the shares of stock of said company or association during the twelve months immediately preceding the date or assessment and the number of shares of stock sold at such quotation. (d) Any other fact or condition of circumstance that will assist in arriving at a just and equitable fair cash value of said capital stock.

"2. From the aggregate amount ascertained as aforesaid there shall be deducted the aggregate amount of the equalized or assessed valuation of all the tangible property, respectively, of such companies and associations, wherever the same may be located (such equalized or assessed valuation of its Illinois property being known in each case, as the same may be determined by the equalization or assessment of property by this board), and the amount remaining in each case, if any, shall be taken and held to be the amount and fair cash value of capital stock, including the franchise, which this board is required by law to assess respectively against companies and associations now or hereafter created under the laws of the state.

"3. The above and foregoing are declared to be the only existing rules and principles adopted by this board for its government in the assessment of capital stock of companies or associations."

The exact interpretation of this rule, if it admits of exact interpretation, is left to the ingenuity of the reader.

How has it worked? The story is short: Franchises have entirely escaped taxation. The following table tells it so far as railroads are concerned:

ASSESSMENT OF RAILROADS.

Year.	Local.	Track, etc.	Capital stock.	Total.
1869	.....	.....	.....	$16,280,960
1871	.....	.....	.....	25,516,042
	Law goes into effect.			
1873	$9,568,043	$59,317,409	$64,611,070	133,496,522
1874	6,863,707	43,529,716	31,314,175	81,707,598
1875	5,673,477	32,163,644	22,649,222	60,486,343
1876	5,403,399	28,819,832	10,106,258	44,329,489
1877	4,496,063	37,141,180	.....	41,637,243
1878	4,051,349	36,410,516	.....	40,461,865

In 1877 the committee of the board of equalization on the assessment of railroads reported as follows (Proceedings of the State Board of Equalization 1877, page 73):

"Your committee finds that a fair and equitable assessment of the 'tangible property' of the foregoing railroads leaves nothing to be assessed as 'capital stock.'"

After some debate this report was adopted, and since then no railroad franchises have been assessed in Illinois.

Franchises not Assessed.

In other cases, the board of equalization goes through the form of assessing capital stock. This is a genuine assessment for many small business corporations; but franchise holding corporations usually escape, the larger companies almost invariably. The table upon page 394, taken in part from evidence presented by the Chicago Teachers' Federation in their suit against the board of equalization—and in part from the proceedings of the board of equalization—gives details for the largest of the Chicago street railroad, gas, electric light and telephone companies.

It is to be noted of course that real property is not assessed at its full value in Chicago, and if either as tangible property or under the franchise tax law, the franchise companies were taxed in the same *proportion* as private individuals or other companies owning real esate, no marked injustice would be done. But such is far from the case. The assessed value of *real estate* is upon an average

TABLE No. 1.	NAME OF COMPANY					
	Chicago City Railway Company	West Chicago Street Railroad Company	North Chicago Street Railroad Company	People's Gas, Light and Coke Company	Chicago Telephone Company	Chicago Edison Company
Amount of capital stock paid up	$13,000,000	13,189,000	7,920,000	28,668,800	5,000,000	5,971,100
Its market value April 1, 1900	@$260	@$111	@$224	@$106.50	@$245	@$150
	$33,800,000	14,639,790	17,740,800	30,532,272	12,250,000	8,956,650
Amount of bonds, par value	$4,619,000	12,201,000	4,744,000	34,496,000	0	4,808,000
Total market value bonds and stock, April 1, 1900	$38,419,500	27,428,770	22,660,160	67,398,272	12,250,000	14,005,050
Assessed valuation of tangible property, 1899	$1,730,899	1,553,746	975,613	3,040,798	903,929	751,797
Net assessment of capital stock, 1899	0	0	0	0	0	0
Market value of bonds and stock for 1899	$38.000,000*	24,800,000*	24,800,000*	65,420,000†	10,098,421§	13,267,000‡
Percentage of assessed to market value	4½	6¼	4	4⅔	9	5⅔

* Computed from lowest quotation of the year.

† From annual statement of company, Chicago Sunday papers, February 10, 1900.

‡ From mean quotation for March and April, 1899.

§ From statement of company, Chicago Sunday *Tribune*, April 29, 1899.

11 or 12 per cent. of its true value,* but the principal franchise corporations given above pay, in the aggregate, slightly over 5 per cent. In other words, the property owner is taxed twice as heavily as the franchise corporation. The small shopkeeper and the office clerk, who are struggling to carry on an independent business or to own their own little home, are weighed down with the heavy taxes which the corporations made wealthy at the expense of the public ought to share.

The Ninth Biennial Report of the Bureau of Labor Statistics of Illinois contains the following interesting data:

TAXES, LICENSES AND SPECIAL PAYMENTS FOR 1896.

CHICAGO CITY RAILWAY COMPANY.

Assessment	$1,300,000	
Percentage assessment to true value	4.54 per cent.	
Market value of stock, bonds and other obligations	28,619,500	
Taxes		$109,382.00
Licenses		22,024.75
Electric light maintenance		10,000.00
Other payments (special, not annual)		101,678.84
Total		$243,085.59
Percentage of total to gross earnings	5.05 per cent.	
Percentage total taxes to true value	0.85 per cent.	
Taxes that would be paid if assessment were 9.25 per cent. of true value and tax rate same as now		$267,293.01
Excess of such tax over all present payments and taxes		24,207.42

WEST CHICAGO STREET RAILWAY.

Assessment	$1,100,000	
Percentage assessment to true value	3 per cent.	
Market value of stock, bonds and other obligations	36,679,100	
Taxes		$100,034.00
Licenses		16,726.87
Other payments (special, not annual)		53,000.00
Total		$169,760.87
Percentage of total to gross receipts	3 per cent.	
Percentage total taxes to true value	0.46 per cent.	
Taxes that would be paid if assessment were 9.25 per cent. of true value and if tax rate were same as now		$366,916.71
Excess of tax over all present payments and taxes		197,155.84

*Based on estimates of persons well qualified to judge and on report of the commission appointed by Mayor Swift in 1896. This commission, composed of three well-known real estate experts and two practical builders, reported that in district considered (the portion bounded by the river, the lake and 12th street) the assessed value of real estate was 9.25 per cent. of the true value. The Board of Equalization added 20 per cent. to the assessment, making the percentage 11.1.

NORTH CHICAGO STREET RAILWAY.

Assessment	$500,000	
Percentage assessment to true value	2.03 per cent.	
Market value of stocks, bonds and other obligations	24,610,400	
Taxes		$44,870.00
Licenses		15,739.86
Electric light maintenance		15,000.00
Other payments (special, not annual)		39,000.00
Total		$114,609.86
Percentage of total to gross receipts	2.03 per cent.	
Percentage total taxes to true value	0.47 per cent.	
Taxes that would be paid if assessment were 9.25 per cent. of true value and if tax rate were same as now		$242,939.10
Excess of such tax over all actual taxes and other payments		128,329.24

Probable Effect of Enforcement.

But the above tables are altogether too favorable to the railroad companies in their implication, for the payment of special car licenses ought not be set off against the taxes they should pay. They ought to pay taxes in addition to these special payments just as any person or corporation does. This means that, on the basis of the market values of their capital stock given in the tables, their taxes should have been increased by the following amounts: Chicago City Railway Co., $157,911.01; West Chicago Street Railway Co., $266,882.71; North Chicago Street Railway Co., $198,069.10. But an increase in their taxes would diminish their dividends and consequently the market value of their stock. Allowing for this on the basis that 5 per cent. is the proper return for this kind of investment, or, what is the same thing, that a 5 cent increase in taxes would diminish the market value of the capital stock $1, we would have approximately the following condition:

	Market value of stocks and bonds.	Increase in taxes to place them on a par value with real estate in center of Chicago.
Chicago City Railway Company	25,987,000	131,600
West Chicago Street Railway Company	32,234,000	222,400
North Chicago Street Railway Company	21,309,000	165,000
Totals	79,530,000	519,000

The equalized assessment of these three companies, at the rate of 11.1 per cent. of the real value, should have been $8,824,000,

instead of $2,900,000. They escaped, then, an assessment of $5,924,000. As the total assessment in Cook county for 1896 was $272,940,874, this would have meant a decrease of about 2 1-6 cents on the dollar for all other taxpayers in Cook county, if the same amount of money had been raised and if these three companies had been taxed at the same rate as real estate was in that year, in the central part of the city.

It is to be especially noticed that in this comparison it has not been proposed to assess these street railroad companies as the poor man, who owns a little cottage or store is assessed, but as the owners of sky scrapers and of land worth millions of dollars per acre are assessed. Suppose the rate of assessment were 15.9 per cent of the real value, which the Bureau of Labor Statistics (Eighth Biennial Report, p. 80), found to be true in 1893 for residences which sold for less than $4,000. If this rate were applied to these three companies alone, after making due allowance for the consequent decrease in the value of their stock, the same amount of money would be raised, if every other taxpayer in the county were given a discount of 3 1-3 per cent. What would be the decrease if the same rate were applied to other franchise holding corporations?

Financial Needs of Chicago.

An incident that occurred at a meeting of the board of equalization last fall shows how completely this law has failed of execution. Owing to insufficiency of funds, the school year in the Chicago public schools has been twice shortened, with a corresponding diminution in salaries. In looking for a remedy the teachers found that the street railroad and gas companies were practically escaping taxation. They then set out to secure the assessment of the capital stock of such corporations, including their franchises. The teachers' representatives appeared before the board of equalization and asked for the enforcement of the law in accordance with the rules of the board. A representative of the corporations referred to this as an attempt to compel the board to enforce some old rules which he felt sure not more than two or three members knew anything about.* A member spoke out

*After securing nothing from the board of equalization but a small increase in the assessment of franchise holding corporations, the teachers brought suit for a writ of *mandamus*, ordering the board to make the assessment. The writ was finally granted by the Circuit Court of Sangamon county. The matter will doubtless come before the Supreme Court for final decision.

and said that none of them knew these rules were in existence before the teachers had asked for their enforcement. How many franchises had they been assessing in accordance with these rules?

Here is a condition for the advocates of franchise taxation to face and a problem for them to solve. For over a quarter of a century Illinois has had a good franchise-tax law; everything has looked well on paper; but franchises have escaped taxation. Why has the law failed?

Why and Wherefore.

It looks as though the franchise interests had soon gained control of the board of equalization. Traction interests especially are expert in dealing with boards and commissions. In this case it is neither difficult nor expensive. Not one man in a hundred knows who is on the board of equalization from his congressional district; not many more than that know that there is such a board or when and how its members are chosen. But those who look after the interests of the franchise holding corporations are better informed; and no one is nominated by either of the principal political parties who is not *persona grata* to them.

It might seem at first blush that the failure to enforce the law was due to the fact that the assessment was made by a central body instead of by the local assessors; but this is not the reason. Practically the same thing would have happened had the assessment been made by local officials, for these same interests are fairly successful in escaping local assessment.

Let us face the real difficulty. By our laws practically all property should be assessed. It is possible, then, while raising a given sum by taxation, to lower the proper tax on one class of property by raising it on some other class. No intelligent man can doubt that some property is taxed too high and other property too low. But whose property is taxed too high, and whose too low? Directly or indirectly large interests may be trusted to "see" the assessing power, whether it be a state board or local officials. These interests will get a low assessment, and the taxes which they ought to pay, and which must be raised, will be taken from the pockets of the great mass of the common people. Moreover the poorer the man, provided only more can be got out of him than is

needed to meet the expense of collection, the greater will be his proportionate share of the burden.

We hardly recognize the force which impells franchise holding interests to escape taxation. The value of their stock depends on its dividend paying power. What is taken in taxes cannot be paid in dividends. If a return of 5 per cent. is expected from the investment, then every nickel taken from them in taxes decreases the selling value of their stock by $1. An increase in their taxes of $5,000 would decrease the market value of their stock $100,000. If there were 100,000 shares this would diminish the value of each share $1. But $5,000 would be a small increase for some of them; a $50,000 increase in their taxes would diminish the total value of their stock $1,000,000, and the value of each of the 100,000 shares $10. Is it any wonder the corporations leave no stone unturned to escape taxation?

Now look at the other side of the picture. The poor citizen, who pays the tax collector $5 or $10, hates to part with his money, it is true; but it would cost him more to make a fight about it and he knows he would not win. Perhaps he does not even see the collector and foolishly thinks that he pays no taxes at all, not realizing that he is paying more for his meat and groceries, more for his coat and shoes, more for his carpets and furniture, because every tax ever put upon any of these articles is ultimately paid by him, their consumer. These people don't even know they pay taxes. Can they be relied on to make a vigorous protest against paying more than their share while the franchise holders are paying less?

It makes but little difference what is the machinery of assessment, it makes but little difference what is the specific form of the law, it makes but little difference how heavy the penalties are for its evasion—witness the wholesale perjury in swearing to schedules of personal property—a class with a strong and direct pecuniary interest in escaping taxation will succeed in throwing the burden on a class which either thinks it is not taxed at all or utterly fails to realize the extent to which it is taxed. But there is a way to tax franchises, a way which is certain to succeed; repeal enough other taxes so that, if sufficient revenue is raised, the franchises must be taxed. When the sources of public revenue have been

made so few that only by assessing franchises can our good politicians raise enough money to pay their own salaries, franchises will be assessed. Even a poor method of assessment will work under those circumstances. As the elimination of evil is a prime requisite for the establishment of the good, so is the repeal of unjust taxation, and its forms are legion, absolutely indispensable to the effective enactment of a just system of taxation. All that is bad in the old must be destroyed before we can reap the benefits of the new.

VALUATION OF CITY REAL ESTATE FOR TAXATION.

By W. A. Somers.

The levy of taxes upon real estate being made in proportion to the assessed value, it is evident that if the assessed valuation gives to each piece of property the same relative proportion of the true value, it will result in an equitable distribution of the burden. The general knowledge of this fact, and the mistaken belief that the assessment is arrived at by taking a percentage of the *true* value of each piece of property, has condoned the practice of using less than the full value in making assessments.

The valuation of real estate for the purpose of taxation is made usually by individual assessors in small districts, each one being entirely independent of all others, and the assessment so made constitutes the basis for all general tax levies. The original assessment district, being the lowest political organization, say a township, first bears the necessary expenses of the town organization, then, being combined with other townships, villages and cities of the county, becomes the basis for the levy of county taxes. The combination of the counties forms the total assessment for the state, and on this the state taxes are levied.

The assessment frequently changes from year to year with the different ideas of the successive assessors, but always falling further below the full value. The departure from the full value probably has its origin in an effort to place valuations low enough to protect taxpayers from paying more than a just proportion of taxes levied by the higher political organizations. When the departure is once made from the full value, the tendency is constantly downward, for the reason that the district assessments being made independently of each other, the districts which are assessed at a higher ratio of the true value than the average will be forced in the next assess-

ment to a lower valuation in self protection. In cases of rapid changes in value—either advancing by reason of increase in population or business, or decreasing from any cause—the assessors will naturally try to protect the interests of their constituents by quickly recognizing any decrease in value, and by being correspondingly slow in recognizing an increase, and thus accelerate the downward tendency.

A further evil of the present system, and the one which is possibly much more important, is the inequality which often exists between properties in the same local assessment district. It is very difficult to ascertain market values where no change in ownership takes place, and, alas! not infrequently, other factors than ignorance are the cause.

In any attempt to compare valuations of tracts, the further the general assessment is below the true value, the greater will be the distortion brought about by any inaccuracy in determining the ratio between the true value and the assessment. The inequalities in the actual payment of taxes will be increased by any variation from an exact ratio of the true value between tracts just in proportion as the general valuation of the district is below the true value. Consequently, this continual lowering of the assessed value increases the inequalities and the difficulty of equalization.

When the inequalities become so great, and the injustice of the distribution of the burden so glaring that public opinion demands a complete readjustment, it is attempted sometimes by making the laws (which almost universally provide that the assessment be made at the true and full cash value), more stringent, by stating specifically that no lower value shall be used on account of the fact that the valuation is for the purpose of taxation; or, as has been done in a few cases, by providing that after the assessment is made at the full value, a percentage of such full value shall be used for the purpose of taxation.

Such attempted readjustment leaves the assessment subject to all the influences which tend to originate and continue the downward movement, and it is but a question of time when it will once more reach the point where public opinion will demand a readjustment.

Real Estate Values.

Before attempting to suggest methods which will insure greater accuracy and inspire in the mind of the taxpayer a confidence in the work, a brief consideration of real estate, its uses, and the principles underlying its value, is necessary.

Real estate, as usually defined for the purpose of taxation, is construed to include the land itself, whether laid out in town lots or otherwise, and all buildings, structures and improvements, trees or other fixtures thereon, and all rights and privileges thereto belonging; and all mines, minerals and quarries in and under the same.

Land is useful, first, for what it contains, or may be made to produce, as in the case of lands, which are useful on account of mineral, timber or agricultural resources. The value of this use may be designated productive value. Second, it is useful as a site upon which buildings may be erected, or upon which commercial enterprises may be carried on. The value of this use may be called site value.

The productive value of timber and mineral land will depend upon the quantity, quality and accessibility of the timber or minerals. The productive value of agricultural land will depend upon the character of the soil, climate and market. The effect of these conditions may be judged, and a reliable estimate of the productive value formed, from a knowledge of the facts.

Site value is that value which attaches to land on account of its usefulness for home or residence purposes, or on account of its favorable location for commercial uses. In both cases, the physical conditions must be considered, but in the case of land useful for residence purposes, the social surroundings will be the determining factor, and in the case of land useful for business purposes, its accessibility and proximity to centers of business activity will be the important element in determining its value. The weight given to these conditions in determining value is almost entirely a matter of opinion, and being entirely local, can only be intelligently judged by those who are familiar with the social conditions and surroundings, and with the opinions of the majority of the other members of the community.

The site value in the case of agricultural lands, especially in districts where farms are occupied by the owners as homes, may be

very great, and may differ greatly without regard to the productive power of the land. Many instances will come to mind of lands of equal productive power and reaching the same markets, in one case located near churches and schools and in a desirable neighborhood, and in the other case being in proximity to a brewery or soap factory, in an undesirable neighborhood, where the difference in value is great, owing entirely to the difference in site value caused by the different social or local conditions.

Productive value is the foundation for all value in lands, even when the site value reaches a point higher than the greatest productive power of the land, and the productive value becomes *nil* locally, as in the business districts of large cities. The climatic conditions may be such that the productive value of surrounding lands is great, yet the quality of the soil covering a business lot will not affect its value. Nevertheless, it is evident that this great site value only exists because of the concentrated productive value of large areas tributary to a common center.

That site value is fixed and determined by local opinion may be seen from the fact that the first settler in a wilderness has a distinct opinion of the value of his clearing and home, even though his nearest neighbor be ten miles away, and his opinion must be considered as the controlling element in a sale of the land. His opinion helps to mould, and is modified by, the opinions of the new settlers going into the district, and the local opinion grows in clearness with the increase in population. The unanimity of opinion will depend upon the social characteristics of the people. The more closely they meet upon common ground, the greater will be the uniformity in their ideas of the value of land. While this uniformity may be developed to a greater extent in one place than in another, still the opinion always exists, and may be found in every locality.

As this opinion is the basis of all purchases and sales, it is evident that it is the true measure of the value of the land, and is the measure which must be used in any successful effort to find the true and full cash value of each piece of property. This opinion may be designated, for convenience, Community Opinion. To define Community Opinion tersely, it is that opinion of value held in common by a majority of the members of a community.

Difficulties of Valuing City Lots.

While this may easily be applied to the assessment of property in rural communities, the lots in a city are so numerous, and of such widely varying shapes and dimensions, and the corner influence is such a disturbing element, that community opinion as to the value of specific tracts or lots cannot be formed. The tract of land constituting an ordinary farm in the rural district will in the city be divided and sub-divided into a thousand lots, and one of these lots situated in an important corner may be worth twice as much as a lot of the same dimensions adjoining, but which fronts on only one street.

The social conditions of a modern city are such that the citizen chooses his circle of friends from the entire city, aiming to secure those with kindred tastes rather than those whose only claim is their physical proximity. While the citizens composing such a circle of friends may own their own homes, the comparison of views will be more often as to the value of houses and other improvements than as to the land itself, and the opinion of each individual as to land values will be limited to very few tracts.

The changes consequent upon the growth of a city also are frequently so rapid that community opinion of values of specific tracts cannot be formed and assimilated. On account of this uncertainty, or lack of uniformity of opinion as to city values, the speculator sees an opportunity to buy from one for less than he can sell to another, which speculation magnifies the natural and justifiable changes, and in many cases results in apparent depreciation. This makes it impossible for anyone, except those who are directly in contact with the real estate business, and who make the conditions a constant study, to form any opinion whatever of the value of specific tracts.

Scheme Suggested: Street Values.

Notwithstanding the fact that community opinion does not exist in cities as to values of specific tracts, there does exist a community opinion which is just as definite and valuable for the purpose of taxation as though it extended to specific tracts, and which has elasticity enough to conform to growth, no matter how rapid, and to changes caused by shifting of business or residence districts. This is the opinion of the relative value of streets, and is community

opinion formed by those familiar with the streets. The question of their relative importance and value is a never failing theme of conversation between the citizens, and tends to bring about a uniformity of opinion, and makes it truly community opinion.

There always exists in cities a community opinion that a certain street is the best for business, and a consequent idea that land fronting thereon is the most valuable. From this most valuable street other streets of less value will be compared, a well defined opinion being present that the property on the less valuable street is valuable just in proportion as the street is less valuable, and the comparison will reach out from the central or best portion and embrace the entire city. The citizen, from having his circle of acquaintances scattered over the city, and from his constant use of the streets, will necessarily form an idea of their comparative value, and no matter what changes occur in the city on account of growth or changes in business or residence sections, the streets will register the changes to the citizen who daily frequents them as truly as the thermometer registers the changes in temperature.

To make use of this community opinion of the relative worth of the streets, it is necessary to find some common term that can be used to express their comparative value as a unit in all parts of the city. The value of one foot in width for some fixed depth is the best measure for this purpose, because of its common use and its applicability both to gauge comparative value of streets and real value of tracts. Starting with the value of such a unit on the best street and of the most valuable property, pushing out always along the lines of the most valuable, the work of recording these units will be easy of accomplishment.

By assuming in every case that the unit of one foot frontage is located in the center of a block, that is, half way between the cross streets forming the block, the most disturbing element, viz., the corner influence, will be entirely eliminated from the problem, and the judgment required in fixing the value of the units will be reduced to a simple comparison of street values.

Provided the value of the units has been fixed at the true and full cash value of the property, the most delicate shading of difference as to comparative value of streets may be accurately recorded in dollars, and any citizen can quickly and easily compare the work

and judge of its accuracy, both as to the relative value of the streets and the actual value of the property.

The work of fixing unit values can best be accomplished through a committee of citizens to determine the most valuable part of the city, and indicate by marking upon maps prepared for the purpose, the value of the units, or the value per front foot for a certain fixed depth in the middle of each side of each block, within the district selected. Then other maps should be prepared of districts surrounding and adjoining the central one, upon which should be marked the value of the marginal units fixed in the first or central district. New committees selected for these districts will have to guide them the values as fixed in the central district, and their work will be to extend these proportionate values over their respective districts.

On the completion of this second group of districts, all members of the various committees will come together with their maps, and the trifling inequalities and discrepancies occurring along adjoining lines may be quickly and satisfactorily corrected, and any errors or careless work that may have occurred in any district will be easily detected and corrected.

In large cities it may require several groups of districts to cover the whole city, in which case each group should be made complete and finished before an attempt is made to fix the value of units in the next larger group. As the work spreads from the center and reaches into the less valuable property, the districts may be made much larger without adding to the work of the committee, because of the greater uniformity in values.

All questions of inaccuracy of judgment must be tested by an examination of the unit values recorded on the map. Any taxpayer can thereby quickly learn the relative difference between the assessment of his property and any other property in the city, knowing that the values recorded indicate the value per foot front for the same fixed depth in all parts of the city. It is therefore necessary that this map, or copies of it, should be made records accessible to all citizens and taxpayers.

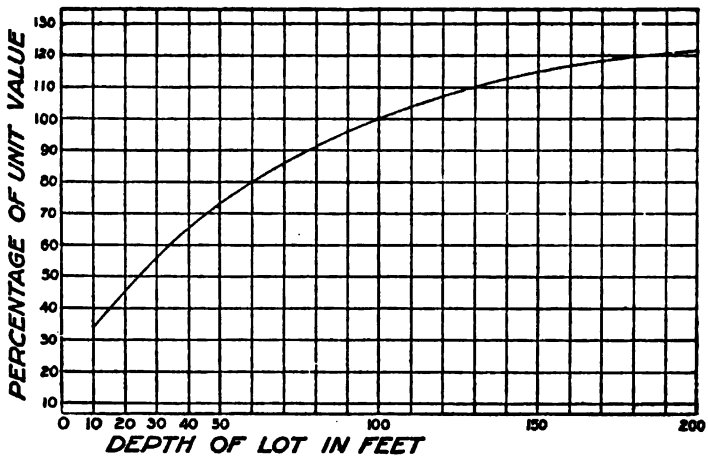
Lots of Varying Depth.

But lots vary in depth; they are not uniform in any city. Thus it is necessary to determine the ratio of the unit value to be used

for different depths. The different uses of the property will require the use of different ratios. For example, a very shallow lot in the retail district is worth a greater proportion of the unit value than a similar lot in the wholesale district. However, it will be found that three sets of ratios will cover all the different conditions—one for wholesale districts, one for retail areas and one for residential property.

The difference between properties used for different purposes, and the relative value of different depths, are practical questions which must be determined by the committees already formed. They should be called upon to fix the ratio for several different depths of lot in each class of property, as the foundation for the construction of scales, by the use of which the same relative proportions can be read for any depths between the points thus fixed. By the use of the scale to determine the frontage value, the value of any lot may be ascertained by a simple multiplication of the width of the lot by its frontage value.

The following represents a scale which has been prepared for lots in a retail district, assuming a unit depth of 100 feet:



A few illustrations will serve to show how it is to be operated. The point of intersection of the line indicating the depth of lot with the curved line shows on the horizontal lines the percentage of the unit value to be taken for that depth of lot. Based upon a unit value of $1,000:

100 feet in depth reads 100%.....$1,000 a front foot
60 feet in depth reads 80%..... 800 a front foot
140 feet in depth reads 113%..... 1,130 a front foot

Corner Lots.

The subdivision of the blocks being made before the building of the city, in many cases the business growth has not followed the ideas of the original surveyors, and the best business streets may be what were originally laid out for cross streets. As a result, the corner influence must be considered to affect an equal frontage on each street forming the corner, and therefore becomes a square. In practice, it will be found most convenient to assume that it covers two lots. The corner lot is very largely affected by the value of the cross street, the lot next to the corner will be affected, but to a much smaller degree, while the third lot will not come within the corner influence.

Referring to Diagram No. 1, the squares affected by the corner influence correspond to the squares A, B, C and D. The frontage value of the unit is shown on this diagram on each side of the valuable than corner C because of the difference in the frontage values of the two streets forming these corners. It is equally clear that corner B is not worth as much as corner A, although they both have an equal frontage on the same street, which is valued at $1,000 a foot, because the cross street bounding corner B is block. It is evident that corner A is more worth only $500 a foot, while the other cross street is worth $800 a foot.

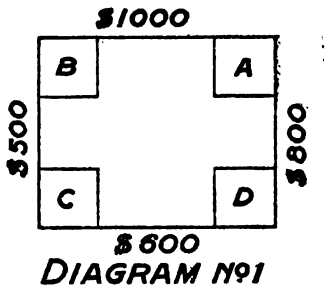


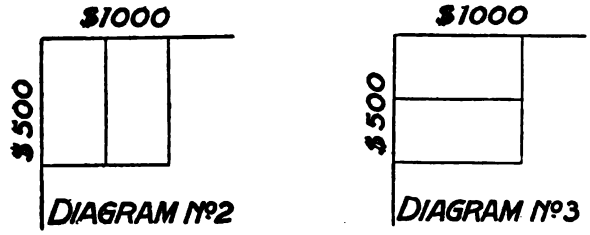
DIAGRAM N91

To make the unit values the basis for determining the values of the corner it is necessary to get an expression of opinion from the committees of the value of a corner under several different conditions, or values of cross streets, as a foundation for the construction of scales by which this opinion may be applied to the determination of the value of any lot or subdivision of a lot coming within the corner influence.

Two or three sets of scales are necessary because of the different uses of the property. In a retail district the corner properties are

relatively more valuable because, where each passer is a possible customer, the facilities for attracting attention afforded by the double frontage are very valuable, while in a wholesale district this double frontage adds to its value only on account of additional light and accessibility.

As it seldom occurs that a corner square is held as one tract, and the most common subdivision of the corner is into two lots, which may be formed by a line running either parallel with, or at right angles to, the best street, scales must be constructed to show the value under both of these conditions. The necessity for this will be clearly understood by reference to Diagrams No. 2 and No. 3, which are intended to show the same corner square, No. 2 being divided by a line running at right angles with the more valuable street, while No. 3 is divided by a line running parallel with the more valuable street. In the case of the division as shown in No. 2, both lots have an equal frontage upon the better street, and while the corner lot is worth considerably more than the inside lot, the difference is not so great as in the case shown in Diagram No. 3, where the inside lot has no frontage on the better street, while the corner lot has its long frontage on the better street, making it a much more valuable lot than the inside one.



The construction of the scales must be made to meet the conditions. It is easily imaginable that in a very valuable section of a large city it would not only be desirable, but necessary, to arrange the scales to read to a much smaller division of the corners where the actual ownership is frequently smaller than the standard lot, and where the values are so great that inaccuracies liable to occur by attempting an adjustment of the values without the use of scales corresponding to the divisions, would cause serious inequalities in the assessment. The scales may be constructed to give the

value of any rectangular piece coming within the corner influence. A scale for testing the work is also used, by which the total value of a corner square may be read, so that any inaccuracies occasioned by irregular divisions will be detected.

It will be remembered that in each case the committee is called upon to fix the value of lots under several different conditions, and from the values thus fixed the scales and rules are constructed and formulated by which the values of specific tracts throughout the city are determined. The fact must not be lost sight of that *these scales are merely the most convenient tools that can be used for this purpose, and are not arbitrary indicators of value.*

The unit values having been determined and marked upon the map upon each side of each block throughout the whole city, and the necessary rules and scales, based upon the community opinion of value as expressed through the committees, having been formulated and constructed, the actual assessment of the value of the land is completed. The balance of the work, that is, the determination of the value of each particular tract throughout the city, is purely clerical, and may be computed by anyone having a knowledge of the rules and understanding the use of the scales. A few illustrations will suffice.

The graph upon page 411 is a corner scale for finding value of two lots short frontage to better sereet, as shown on Diagram No. 4.

These scales should be constructed upon paper engraved with horizontal paralled lines to indicate the value in dollars, as marked on the margin of the scale. The larger triangle, marked "First Lot," is to give the value of the corner or more valuable lot marked A on the diagram, and the smaller triangle is to give the value of the inside or less valuable lot, marked B on the diagram.

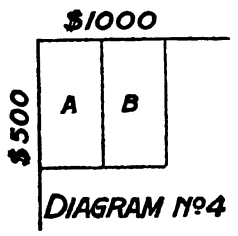
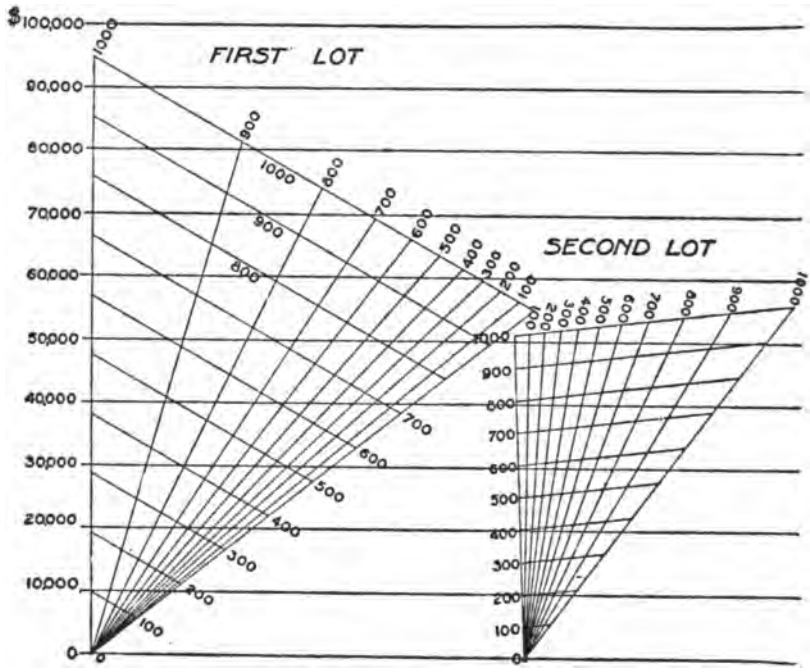


DIAGRAM №4

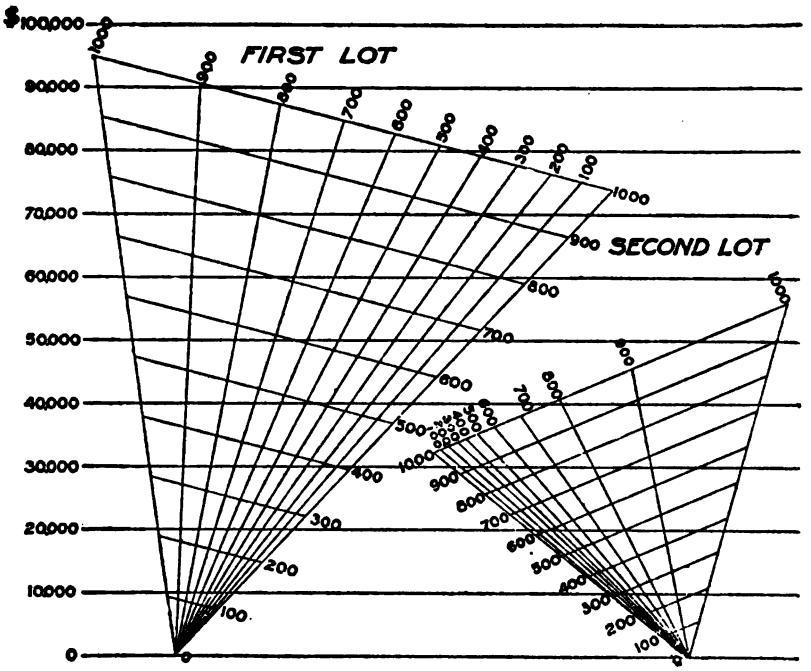
The ten parallel lines marked from 100 to 1,000 at their lower ends, are used as indexes corresponding with the values of the better street from $100 to $1,000. The eleven lines radiating from the zero point at the bottom of the scale, and crossing the parallel lines referred to, correspond to the values of the less valuable street. The first, or zero line has no value, the second line corresponds to a street of one-tenth the



value of the better street, the third line corresponds to a street having two-tenths the value of the better street, and so on to the eleventh line, which corresponds to a case in which the streets are of equal value. The explanation applies to all the corner scales.

To find the value of Lot A, as shown on the above diagram, the unit values being fixed as marked, the best street being valued at $1,000; on the scale marked "First Lot" find the parallel line corresponding to this figure (marked 1,000), follow this line upward to its intersection with the radiant line corresponding to the value of the cross street—500. This point of intersection falls between the $60,000 and $70,000 horizontal lines, and reads, if the scales were large enough to show the divisions, $63,500. To find the value of Lot B, read in the same manner from scale marked "Second Lot," from which it will be found that the value is $52,500, making the total value of the square $116,000.

The following is another corner scale for finding value of two lots short frontage to street of less value, as shown on Diagram No. 5:



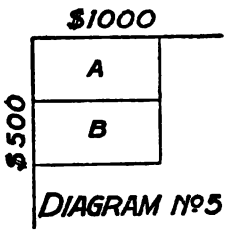


DIAGRAM No 5

To find on these scales the value of Lots A and B follow the rules just given, which will give the value of Lot A as $81,000, and the value of Lot B as $35,000, making the total value of the square $116,000.

A third corner scale, the graph for which is upon page 414, is for finding the value of corner square as a whole, as shown on Diagram No. 6.

The value of the corner square, with values indicated as shown on the occompanying diagram, is found in the same manner as in the preceding cases, by following up the 1,000 parallel line to its intersection with the 500 radiant line, which point indicates the value on the horizontal lines as $116,000.

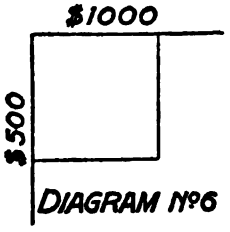
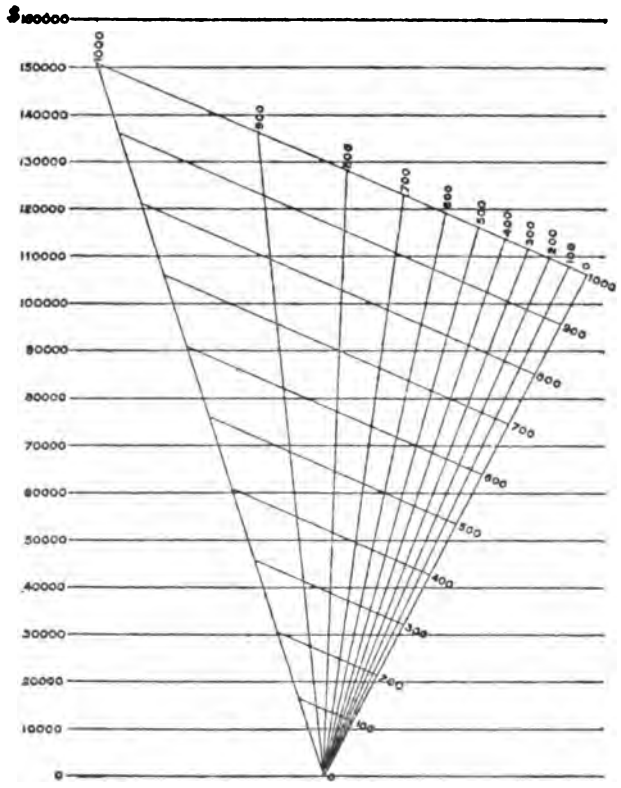


DIAGRAM No 6

The value of the corner square being fixed by the unit values of the streets forming the corner, it is evident that the division or sub-



division of the square does not change its value. Therefore, the fact that the scales give the same total in each case demonstrates their accuracy.

The scales shown herewith are for illustrative purposes. Scales for practical use should be large enough to admit of marking the values of intermediate cross streets along each parallel line, by which the value of any corner bound by streets of units of $1,000 or less, may be read.

An assessment to be successful must be satisfactory to a great majority of the members of the community. This can only be attained through their general knowledge of the work, and confidence in its justice and equity, and no matter how carefully and accurately the work may actually be carried out, unless the methods used inspire this confidence, the work will not be satisfactory. The method of dividing the work among a number of com-

mittees, consisting of citizens qualified to judge, and who have the confidence of the community, will result in giving the best possible expression of the comparative street values. The fact that the unit values are fixed and marked upon the map without regard to the size, shape or ownership of the lots, and the further fact that these figures are always accessible by the public, precludes the possibility of one property owner being favored at the expense of another, and must tend to create in the minds of all citizens a confidence in the justice and equity of the work.

The advantages of this system are evident. It largely removes the possibility of discrimination by reducing the basis of valuation to a uniform standard, there being no opportunity to lower the assessment of a single piece of property below the figure fixed by the scale. It is not necessary to value each lot, and thus a large amount of labor is saved, to say nothing of the temptations which visit the assessor under the present system. The principal task, upon which all else depends, is the fixing of relative street values, which, having been done, the remainder is simple mathematical computation. This not only simplifies the problem, but enables the property owner to ascertain easily whether the assessment is correct. The work is no longer done in secrecy, but upon the housetop and in a simple way.

Improvements.

The work of placing valuations on the buildings of a city is chiefly difficult on account of its magnitude. The cost of reproduction, rather than the original cost, is a determining factor of importance, and in respect to any one building may be easily obtained through the estimates of architects and contractors. Two other important factors enter into the determination of the value of city buildings—viz., probable period of usefulness and present utility. The judgment of the former must be largely based upon the facts brought out by a careful examination of the structure as to its physical condition and its fitness for the purpose it occupies. The value of the use of the structure, measured by the rents which may be received for its use, is the best guide to the value of its present utility.

In the valuation of city buildings for the purpose of taxation, however, the expense of employing experts, on account of

the great number and variety of structures, is prohibitive, and it is necessary to devise a method which will give the same good results at a comparative small expense.

A "building slip," containing questions which may be easily answered and arranged in such a manner that the answers may be quickly recorded, and which, when answered, will bring to the hand of the assessor the knowledge necessary to the formation of a reliable opinion of value, offers the best means for overcoming the difficulty of the great mass of the work.

From the records in the assessor's office at St. Paul, I take a slip as filled out by one of the examiners, which shows the following information in a very compact but easily understood form:

READING OF BUILDING SLIP.

Examined Apr. 20, 1896. Is a single house, No. 240 Laurel Ave., constructed of wood, upon a stone foundation, main floor being 4 ft. above general surface of ground. Front of the house 27 ft. wide; this width extends back 39 ft. Then it is 18 ft. wide, extending back 11 ft., all of which is two stories high. There is one one-story bay-window, and one two-story bay-window. Front porch is 9x26, a side porch 6x15, and rear porch 5x11. Roof is of shingles, built in form of a gable. Outside finish of siding with plain wood trimmings and there is a cellar under whole house, in which there are located a furnace, laundry room and rooms for vegetable storage. First story is divided into a hall, parlor, sitting-room, dining-room and kitchen. Second floor contains four bedrooms and bathroom. One room in the attic, unfinished. The inside finish of main part of lower story is plain pine finished in oil. Upper story the same. Heating system, hot water. Building is supplied with city water with faucets in yard, first and second floors, one bathroom, one closet, one sink and a faucet in barn. It is connected with city sewer system.

Building is in good repair and is occupied by owner, who estimates that it would rent for $50 per month, and who states that the building was constructed in 1890.

The barn on the lot is constructed of wood, 36 ft. wide by 18 ft. deep, 1½ stories high, containing three stalls and one living room.

In front of the lot is a sidewalk made of cement with a granite curb in good condition. Surface of lot is level and about two feet above grade of street.

The slips used in St. Paul are so simple and the work of gathering this great mass of information is thereby reduced to such a system, that the cost is small and the work may be performed by men of no special training. A builder is the only expert necessary for the work, and the slips being of the same size, printed in the same manner and filled out according to the same rules, the builder, with a careful analysis of a few of them and accurate estimates of the buildings covered, can quickly arrange

the slips in classes or grades of structures. He can see at a glance whether a slip describes a building which it would cost $5.00 or $1.00 a square foot to reproduce, and it can be placed in the class to which it belongs. Through classifying the work in this manner, the duties of the builder are comparatively simple, and his work will be speedily performed. By this means the great magnitude of the work is overcome, and each improvement is assessed at its true and full cash value as determined by all the influences existing. The fundamental idea being, as above, to remove opportunity for discrimination by making certain fixed rules and by marking all property according to them.

The value of the improvements upon each tract or lot having been added to the value of the land, the assessment of the individual properties held and owned by the citizens is complete.

While the city may be divided into many assessment districts, for the purpose of combination with township and village assessments, it is and must be considered as one. After review by the city board of review, the rolls will be reported directly to the county auditor, where they should be combined with the village and township assessments, constituting the assessment of the county, to be passed upon by the county board of review.

The practicability of the methods in the foregoing is evidenced by the fact that the assessment of the city of St. Paul and Ramsey county, Minnesota, in 1896, was made in accordance with the foregoing principles and methods, under the direction of the writer, and proved satisfactory not only to the taxpayers, but to the state board of equalization as well.

In connection with the work 25,000 buildings were actually measured and their values estimated, and something over 150,000 different lots or tracts of land were examined and valued, covering in the city of St. Paul alone 55 square miles.

The committees of citizens called to assist in this work were composed of 38 prominent, well-known and substantial taxpayers. The committees were easily secured, and the members became deeply interested in the work, which they carried out thoroughly and completely by holding some twenty short sessions.

This assessment still stands, having been copied by subsequent assessors.

The success of the assessment and the satisfaction with which it was received by the citizens of St. Paul and Ramsey county, is well expressed by the following editorial in the St. Paul *Pioneer Press* of July 21, 1896:

"For the first time in its history St. Paul has had a satisfactory official appraisement of the values of real estate within its limits. * * * When the time came for reassessing the real estate of the city this year, as the result of conferences with representative citizens of all parties, the county assessor, Robert Seng, backed by an additional appropriation from the county, was ready with a plan of reassessment, submitted by Mr. W. A. Somers and carried out under his charge, which is nearly as scientific a scheme of assessing real estate as can well be devised."

RECENT STREET RAILWAY LEGISLATION IN PENNSYLVANIA AND PHILADELPHIA.

By Clinton Rogers Woodruff.

Pennsylvania and Philadelphia have established new records for franchise legislation and regulation, which outdistance all previous records for flagrant and cynical disregard of public and private interests. Without question the recent action of the Pennsylvania Legislature and of Philadelphia councils constitutes one of the most conspicuous instances of infamous franchise looting in the municipal history of the United States. I use these words advisedly and cite the following facts and sequence of events to justify them.

On May 29, 1901, two street railway bills were introduced into the Senate of Pennsylvania—one by Senator Emery and one by Senator Focht. The former was in the form of a supplement to the Street Railway Act of 1889, as amended by the act of 1895, and provided, among other things, that where a street railway company shall receive a charter to build a road on any street or highway no other charter shall be granted to any other company to occupy the same street or highway until after the time given to the first company to obtain the consent of the local authorities and to begin and complete its work shall have elapsed.

It further gives such corporations power "to *take*, hold, purchase, *operate*, *lease* and convey such real and personal property, estate and *franchises*, as the purpose of the corporation shall require." (The *italicized* words represent the new powers given to such corporations.)

The corporations are also given the power to use such portion of tracks on all the streets, highways or bridges occupied by any other passenger railway company or companies incorporated under this or any general or special act and already laid down and in

constant daily use, and of all streets, highways and bridges included in the route of any other company or companies, but where the tracks are not laid down or which are not in constant daily use or which are only in temporary use. The length of tracks to be used on any other road already laid down shall in no event exceed 2,500 feet in length, in which measurement no bridges to be crossed or the approaches thereto shall be included, and the consent of the local authorities must be first secured. The compensation for such use of the tracks or streets is to be determined by five viewers appointed by the courts of common pleas.

The act also provides that all streets, highways and bridges, the use and occupation of which has been abandoned or which shall be deemed abandoned as hereafter set forth, or which are only in temporary use, or which are not occupied by any railroad because of the prohibition contained in any act of assembly or any ordinance of council, or because of any contract or agreement by and between any railway and the commonwealth or any railway and the local authorities of any city, may thereafter or hereafter with the consent of the local authorities, but not otherwise, be occupied and used by any railway company chartered under this act, or by the company which has abandoned or discontinued the use thereof.

The act further provides that applications to the local authorities must be made within two years and that the road must be completed and in use within five years thereafter. Corporations formed under the act are given the right and power to acquire property and lay tracks thereon.

The Focht Bill was entitled "An Act to Provide for the Incorporation and Government of Passenger Railways, either Elevated or Underground, or Partly Elevated and Partly Underground, with Surface Rights." After providing for the conditions to be complied with in the matter of incorporation and the other details incident thereto, Section 8 gives such companies the right of eminent domain and further the authority to use so much of the streets, highways and bridges of the commonwealth immediately adjacent to its tracks as may be necessary and proper either for the erection of stations or the proper, necessary and convenient approaches thereto, or both.

These bills were introduced without any previous public announcement. They came as a surprise alike to the public of the State and to the numerous existing street railway corporations. There had been no demand at this session for additional legislation on the subject, nor had there been any discussion of it. Early in the winter the late Albert L. Johnson, president of the Lehigh Valley Traction Company, had given public notice of his desire and intention to bring his lines into Philadelphia, and, in connection with this announcement, he published a list of about 180 miles of streets not now occupied with any street railway tracks, and upon which no rights to lay them were outstanding. Mr. Johnson, however, did not need additional legislation, and intended to appeal to councils for the needed permission at the proper time. It is generally thought that it was this publication of his plans that first suggested to the political machine the legislation herein described. There was a further reason for it to be found in the fact that some of the officers of the traction companies of Philadelphia and Pittsburg had recently been more or less active in opposing Senator Quay's re-election to the United States Senate. Here, then, was an opportunity to secure franchises of great value and, at the same time, punish those who had the temerity to oppose the machine in the execution of its plans. In short, profit and revenge could be attained at the same stroke, and, once its plans were formed, the machine executed them with relentless vigor and with no regard to public decency or the rights of the public, or the interests involved.

Introduced at 3 p. m. on Monday, May 29, they were reported from committee within 5 minutes, and, by 8.50 p. m., the bills were printed and on the desks of the members of the Senate, and were passed by 9 p. m. on first reading. The Constitution provides that every bill must be read in place, presented to the chair, referred to a committee, reported therefrom, printed and read on three separate days. Here, then, we had the first five out of eight steps taken within six hours on one day.

The next day the bills passed second reading, notwithstanding that it was a legal holiday (Memorial Day), and, on the next day (Friday), they were passed finally, and were directed to be sent to the House for concurrence.

Although Friday is the day usually of small attendance, and is usually set aside for first reading, there was a full attendance of

the Senate, and the bill's reading secured the necessary twenty-six votes on final passage.

On the following Monday (June 3) the House, which usually meets on that day at 8 or 8.30 p. m., was called to meet at 4 p. m., shortly after which hour the two bills were received from the Senate and at once referred to the Committee on Corporations. Although the rules of the House forbid a committee from sitting while the House is in session, this rule was disregarded, and, without any chance whatever for any public hearing, the bills were brought back with a favorable recommendation. It was thought that the chairman of that committee would report them, and, as unanimous consent was necessary to receive the report at that time, the attention of the opposition was centered upon him. He made several attempts to get the Speaker's eye, but, in the meantime, an inconspicuous member of the committee, whose membership on it was but very little known, asked, in a low tone, for unanimous consent to report a bill. There was no objection, and, before the House knew what was going on, the Speaker announced that the bills had been reported out favorably. By this ruse the opposition was tricked and the rules of the House violated. Objection was at once raised, but to no effect, the Speaker being in the plot. The point was raised that the bills were improperly before the House, because of the committee having sat during a session of the House. With more force than grammar, he declared the point not well taken, "as the committe has sit." By 9 o'clock of that evening, the bills had passed first reading. On Tuesday, they were amended so as to prevent or make difficult the inauguration of three-cent fares, and passed second reading. They were then returned to the committee for needed changes in phraseology and re-reported next morning. On Wednesday, the bills passed finally.

On both second and third readings attempts were made to incorporate amendments protecting the interests of the State and cities, but to no avail. Among the amendments overwhelmingly defeated were those providing for four weeks' advertising of applications for franchises; for making the future bestowal of franchises subject to existing laws; to abolish the right to lease, sell or convey the franchises; forbidding the lease or conveyance of

franchises to parallel or competing lines; forbidding the issuance of stocks or bonds in excess of the actual cost of the road and its equipment; requiring that the roads be built or operated before the franchises could be sold; requiring elevated and underground railways to charge three-cent fares. Efforts to have the bills recommitted to afford a hearing for the interests involved were likewise defeated. In short, the bills were passed on schedule time by the committees and by the two houses, and no amendments or motions, except those favored by the machine (or "gang," as the papers have come to call those who have pooled their political interests for the spoilation of the State and cities), were passed or even given consideration, for, after a short debate, the previous question was called on every motion and amendment offered.

Three amendments of importance were added to the Focht bill. The first provided that any company incorporated under the act may make contracts to carry the United States mails; the second prohibits such companies from connecting their tracks with those of any railroad incorporated for the transportation of both passengers and freight from interchanging companies; the third expanded the section giving elevated and underground roads the right of eminent domain. The second amendment was inserted, according to well-informed authorities, to protect the steam railroads, at the instance of the Pennsylvania Railroad. The Emery bill was similarly amended, so that the companies chartered under the new bills are denied the privilege of carrying freight.

In six legislative days, two bills, radically changing the street railway law of the State and jeopardizing hundreds of millions of already invested capital and affecting untold millions of future franchises were passed without a single public hearing, and, in one house, without any debate, and, in the other, with only a travesty of one. I venture to declare that this is a record of rapid legislation in flagrant disregard and defiance of public sentiment and interests unequaled in the history of any other State in the country.

On July 7, at midnight, without a public hearing, and in the executive mansion, rather than in his public office, Governor Strong signed the bills in the presence of United States Senator Quay, his son, R. R. Quay, a Pittsburg millionaire and street railway manipulator; United States Senator Penrose, Congressman

H. Foerderer, of Philadelphia, who has since become the leading spokesman for the grantees of the new franchises; Clarence Wolf, Mayor Ashbridge's banker; Select Councilman J. P. McNichol, and Millionaire Contractor John M. Mack, all of Philadelphia; Henry W. and George T. Oliver, P. W. T. Mellen and E. M. Bigelow, Pittsburg capitalists and Quay supporters.

The Governor's action was officially published on the morning of July 8, and then the rush for charters began. The capitalists and politicians just mentioned were early on hand at the State Department, and, as the secretary of the commonwealth is a strong Quay machine man, he did not throw any obstacles in their way. Over one hundred applications for charters were filed between 7 and 10 a. m., of which thirteen were for Philadelphia companies. The formal incorporators were Robert H. Foerderer, John M. Mack, Michael Murphy, Clarence Wolf and Joseph Mack.*

The companies were capitalized for a total of $7,198,000.

The charters were granted on Saturday, June 8. The same day a special meeting of the Select Council of Philadelphia was called for the following Monday at 3 o'clock, the earliest possible day. The Chamber met on that day and thirteen ordinances, granting the requisite privileges to the thirteen companies, were formally introduced and referred to the Street Railway Committee, which met at 1 o'clock Tuesday. There was a semblance of a hearing on this occasion, and Harry B. French, president of the Municipal League of Philadelphia, was graciously permitted to read the following statement of the League's position:

"First. That, although the recent acts of Assembly permit the lapse of a long period of time before any construction need be undertaken by any of these corporations, it is within the power of the City Councils to cut down this time and fix a shorter period within which the work of construction shall be begun and finished, and the interests of the people thereby more quickly served.

"Second. That it is within the power of Councils to couple, with the grant of the franchise, any condition that it thinks is for the benefit of the city and its inhabitants, such as a condition limiting the rate of fare, one providing for free transfers, one providing for the paving of the streets, one providing for adequate compensation for the grant of the franchise, and, most important of all, it is within the power of Councils to limit the term of the franchise and to provide that the tracks of the

*The titles of the thirteen companies are Passynuk Avenue Elevated, Broad Street Subway, Western Rapid Transit, Broad Street Rapid Transit, Chestnut Hill and Glenside Rapid Transit, Ridge Avenue Elevated, Frankford Elevated, Northern Rapid Transit, Germantown Avenue Elevated, Southern Rapid Transit, Eastern Rapid Transit, Central Rapid Transit and Market Street Elevated.

companies asking the franchise shall become public property at the expiration of the term for which the franchise is granted.

"Experience elsewhere as well as in this city has shown that franchises once granted have been but little subject to regulation, and that the interests of the city must be safeguarded at the time of grant, if at all."

The statement was heard by the committee in silence. Not a word was said about it by any member, and not a step taken, even, to consider the suggestions. The ordinances were all recommended for favorable consideration and were sent to Select Council, which passed them on first reading the same day. On July 12 the ordinances were passed finally by Select Council, and they were messaged to Common Council, which concurred in them all, sitting until 7 p. m. to accomplish this result—an hour beyond the time fixed for adjournment by the rules. The record of councils was more expeditious, for it passed thirteen long and intricate ordinances through all the stages of legislation in three days—a process made possible by their rules and the laws under which they are organized.

The next day, the 13th, the bills were transcribed and sent to Mayor Ashbridge for his consideration. Notwithstanding the statement of his private secretary that the ordinances would not be signed that day, they were, as a matter of fact, signed that evening, the Mayor returning from the ceremonies incident to the opening of the United States Mint, and remaining at his office until after midnight for the purpose. This action of the Mayor was undoubtedly due to the offer of John Wanamaker to pay the city $2,500,000 for the franchises conferred by the ordinances, he having deposited $250,000 with a trust company on account of the proposition. The letter conveying this proposition was handed to Mayor Ashbridge by Mr. Wanamaker's private secretary. The Mayor contemptuously flung aside the letter when he saw the envelope, without taking the trouble to examine its contents. He hastened back to his office, however, and did not leave it until all the ordinances had been officially approved.

To sum up, we have two highly-important bills touching a question of vital moment passed in six legislative days—the shortest possible time under our Constitution—and approved the next day at midnight without hearings of any kind. Then thirteen companies were incorporated under them in a single day. Then thir-

teen ordinances, granting valuable franchises, were passed in three days, and signed the fourth day by the Mayor at midnight, without hearing and in the face of a highly-advantageous offer from a responsible and well-known citizen, who had deposited a quarter of a million as an earnest of his good faith. I challenge any community in the United States to equal such a record of indifference to public sentiment, profligacy with the public assets, disregard of a public trust and the subjection of the law and lawmaking power for selfish private ends. If there is any city, large or small, which can show a similar record I want to learn of it, simply to relieve the feeling of degradation I now have.

Many scandals have attended the granting of franchises in Philadelphia, but we have never had anything that quite equaled this. I have heard of the "jamming" process in legislation, but I never saw it applied with more vigor than in the instance described in this article. The only concession of any kind made was the slight hearing granted to the Municipal League through its president, and his treatment was such as to reinforce rather than diminish the impression that the interest of the people were of remote consequence and consideration.

Shortly after the Focht and Emery bills were enacted, two supplemental bills were passed. The one to the Focht bill gave the corporations brought into existence by its provisions authority to build either an elevated or an underground road, or both an elevated and an underground railway, over the route described in their charter. The second provided that no street railway company shall hereafter be chartered until the necessity for such railways shall have been passed upon by a board consisting of the Governor, Attorney General and Secretary of the Commonwealth. In other words, having filched the State and the municipalities of all they could carry away at one time, they have left three of tried and trusted friends on guard to prevent any one else from carrying away any of the plunder yet unappropriated. The bills, popularly known as "chasers," were put through in the same time as the Focht and Emery bills, and, of course, received executive approval at the hands of Governor Stone.

BOSTON'S NEW SUBWAY.*

By Willard Winslow.

To Boston belongs the honor of constructing the first municipal subway in the United States. Construction was begun in 1895 and the work was completed in 1898 at a total cost of $4,350,000. Its object was to relieve the congestion of traffic upon the crooked, narrow and crowded streets in the central portion of the city, and to afford rapid communication between the business district and suburban areas upon the south and west.

To many the scheme was an experiment, especially to those who oppose the extension of municipal action. But its success was immediately demonstrated, not only from the point of view of rapid transit, but of finance as well. As a result, the construction of a second subway was proposed, to connect Scollay Square with the suburban districts upon the east.

The first bill to effect this result was drafted by and introduced into the legislature at the request of the Citizens' Association of Boston. It provided that the Boston Transit Commission (the authority which has charge of the present subway) should construct the proposed subway and pay for it by issuing city bonds. It also empowered the commission to lease the road to an operating company for a period of 20 years, the terms of the lease being subject to the approval of the State Board of Railroad Commissioners. This bill was not satisfactory to the Boston Elevated Railway—the proposed lessee—and after considerable negotiation with view to effecting an agreement, a new bill was drafted.

The principle difference between this and the former plan was that, while the Rapid Transit Commission was to construct the road,

*The writer wishes to express his indebtedness to Mr. Louis D. Brandeis for the use of valuable material regarding the proposed subway.

the Elevated Railway Company was to defray all expenses and use the subway until 1937 without paying the city anything for the privilege. The bill also extended the lease of the old subway from 1917 to 1937, making both agreements terminate at the same date. At the expiration of the lease, purchase by the city was provided for upon the condition that a majority of the voters of the city should so decide, and the payment to be made to the private company was the cost of the subway and structure less depreciation.

This proposition, which virtually handed over the subway to a private corporation for 40 years at the expiration of which period the city could only purchase it upon paying the market value, aroused great hostility and was condemned by many as a serious menace to the interests of the city. The Associated Board of Trade took the lead in opposing this measure, and as a result of the hearings before the legislature and the widespread opposition it encountered, no action was taken in the session of 1900.

Early in 1901 the Citizens' Association introduced a bill similar to the one it fathered in the previous session. The Associated Board of Trade presented a scheme similar to the statute under which the present subway is being operated, namely: municipal ownership and construction of the subway, the Boston Elevated Railway Company paying $4\frac{1}{8}$ per cent. of the net cost of the subway and its appurtenances for a lease terminating in 1917. In case the Boston Elevated Railway Company should not desire to lease the new subway, a similar agreement could be made with any other company.

Discussion of the various schemes continued. Numerous hearings were again held by legislative committees, and the longer the question was discussed the more evident it became that private ownership and control would be a grave mistake. Long after the hearings had been closed and while the committee on metropolitan affairs was considering the drafting of a measure, the Elevated Railway Company presented a new bill. The title and ownership of the subway was to be vested in the city of Boston, although the company was to furnish the funds to build it, not to exceed $6,000,000, and to have exclusive use and control of it for fifty years from date of completion. In other respects it did not differ materially from the measure introduced by the Associated Board of Trade and certainly was not much more favorable to the city.

Although the opposition was strenuous, the committee having the matter in charge finally reported by a vote of 13 to 2 a bill calling for the construction of the subway by the Boston Transit Commission, the payment of not more than $6,000,000 by the Elevated Railway Company and a lease to it of the subway for 40 years without payment of rent.

The committee's bill passed the House by a vote of 159 to 45 and the Senate by a vote of 25 to 11. When it came before Governor Crane for approval, he wrote a vigorous veto message, which had such a marked effect that over 60 members in the House changed their votes and the veto was sustained by a vote of 135 to 98.

The general interest in franchise questions and the excellent terse presentation by Governor Crane of the reasons why the bill should not become a law lead me to quote quite fully from his message:

This amounts to a lease of the proposed subway, when constructed, to the Boston Elevated Railway Company for a gross rental of $6,000,000, paid in advance. If the cost of the subway does not exceed $6,000.000, this rental, on the basis of 4⅞ per cent., the rate of the lease of the existing subway, taking into consideration the advantageous investment of the sinking fund provided for by the bill, would enable the company to make itself whole in from thirty-two to thirty-five years, and would give to the Boston Elevated Railway Company the free and exclusive use of a great artery of public travel for from five to eight years without any compensation whatever. It is fair to assume that the sinking fund would be invested so as to bring about this result, but if not so invested the rental for the term would not exceed 4⅞ per cent., the minimum rental of the Tremont Street subway; but the lease of the latter provides also for an increase of the rent proportioned to the amount of business done by the lessee. There is no such provision in the lease authorized by this bill. However much the volume of transportation may increase, the lessee, not the city, will receive the benefit. This provision, which is omitted in the present bill, making the amount of rent proportionate to the volume of business, is wise and equitable.

But there is no assurance that the subway can be constructed for $6,000,000. If, as is very likely to be the case, the cost is in excess of that sum, not only is the rental of the subway proportionately decreased, but the excess must be paid by the city without reimbursement from any source. To the extent of such excess of cost the subway will be constructed at the expense of the city for the benefit of the proposed lessee. * * *

Previous legislatures have referred to the city of Boston, for its acceptance or rejection, acts relating to rapid transit. And the results of the ballots so taken show that the voters have acted intelligently, and with a full understanding of the issues involved. * * * I see no good reason why these precedents should not be followed in a bill so important and far-reaching in its consequences to the citizens of Boston as is the one before me.

The bill is objectionable for the further reason that it is in violation of the spirit of the statutes designed to prevent stock-watering, laws whose wisdom have been so

far confirmed by experience that all attempts to modify or repeal them have failed. The essence of stock-watering is, I take it to be, the issuance of stock not based upon actual property of the corporation. This bill provides that the money to be paid to the city of Boston may be provided for by issuing stock; but no provision is made for the redemption or cancellation of the stock at the end of the term. The money so paid is, in fact, expended, not for permanent improvements, but for rentals, and does not increase the value of the plant of the company. At the end of forty years the stock is free, and will be held by the company without property to show for it. There is, it is true, a provision for a sinking fund, but none whatever that the proceeds of the sinking fund shall be used to retire the stock so issued. * * *

The act of 1894, authorizing the construction of the existing subway, made careful provision in section 36 for the relocation by the commission of sewers, gas pipes, water pipes and other conduits; but the section of the present bill referring to the same subject (section 8) makes no such provision. It authorizes the commission to remove all such structures, but does not provide for their relocation or accommodation, either within or without the new subway; and it is doubtful whether they could be located within the new subway, even if in the judgment of the authorities they could be so placed without detriment to its use by the railway corporation. This, in my mind, is an important omission. The structures to which I refer are allowed to be placed beneath the streets for the public convenience, and explicit provision should be made for a continuance of their rights.

But there is a still more serious objection to the bill. It involves a surrender of public rights for an unusual term of years, and under unusual conditions. No street railway, with the exception of certain privileges heretofore assured to the West End Street Railway Company and the Boston Elevated Railway Company for special reasons, has other than a revocable franchise in a public way.

But this bill will, if it becomes a law, give to a private corporation a valuable monopoly in a great public thoroughfare and will perpetuate that monopoly for forty years. It not only binds this generation; it ties the hands of the generation to come. The surrender of rights which belong to the public, even for a brief term of years, should be permitted only after the most careful consideration, and for controlling reasons of public policy; but no exigency has been shown to exist to justify the taking away of such rights from a generation yet unborn.

No reason affecting the public welfare requires the adoption of this extraordinary proposition. The rapid transit of passengers by means of a subway is no longer an experiment. There can be no reasonable doubt that if such a structure be built and paid for by the city it can be leased to a transportation company for a sum amply sufficient to take care of the interest on the money borrowed therefor, and to provide a sinking fund for its ultimate redemption.

The charter of the Boston Elevated Railway Company, giving it certain exclusive rights for a period of twenty-five years, was granted to it chiefly upon the ground that the construction of an elevated railway, and the payment of damages that might accrue to abuters thereby, would involve so large an expenditure that capitalists would not be expected to invest their money without some assurance of permanency for a fixed term. The act of 1894, providing for the construction of the present subway, authorized the Boston Transit Commission to lease it for a term of fifty years, but the legislature of 1897 wisely cut down this period from fifty to twenty years. Neither of these grants, therefore, constitutes a sufficient precedent for the long term authorized by this bill.

No one can foresee what advance may be made in the methods and cost of transportation, in the volume of travel, or in the facilities that may be required for its accommodation in the next forty years. The history of passenger transportation during the last forty years, and the wonderful advance that has been made, not only in the amount of travel, but in the facilities afforded to passengers, is sufficient evidence of our inability to predict the future. This bill, however, while it does not restrict the company, ties the hands of the community. It will prevent the public from taking advantage of any such improvements in transportation facilities on the proposed route, excepting those that may be deemed by the company advantageous to it. A consideration of the disastrous results which would have followed if exclusive rights had been granted to a street railway company forty years ago to continue until the present time, illustrates the limitations which this bill would impose upon the public, and the unwisdom of its enactment.

All the special rights and privileges enjoyed by the Boston Elevated Railway Company will have expired in the year 1922. It has no moral or equitable claim to a continuance of those privileges, or of any exclusive privileges whatever. There is no good reason why the public should not at that time come into complete possession of its own, to the end that further franchises may then be grantetd in view of the improvements in the methods of rapid transit which may then have been made, and with the sole object of securing, in the highest degree and at the lowest cost, the convenience of the people of that day. But this bill, if approved, would go far in assuring a continuance of the command of the situation for a period of twenty years more. Although its rights in the existing subway will have ended, it is not difficult to foresee that a company in exclusive possession for a long term of years of a most important avenue of travel, will be in a position to control the situation and to prevent other transportation companies from competing upon equal terms. No such opportunity for control of the situation at that time should be permitted.

I am unable to give my assent to a bill which thus restricts the rights of the public, on the one hand, while, on the other hand, it insures valuable exclusive privileges to the company in question for so long a period; and that, too, without any public exigency requiring the passage of so extraordinary a measure.

The importance of the general principles laid down in this message, the fact that they have been endorsed by one house of the State legislature by a considerable majority warrants careful thought. Briefly summarized, they are:

1. Municipal franchises should not be granted to private corporations without the consent of the city in question.

2. The referendum is a proper method of determining local opinion.

3. Public rights should not be surrendered for an unusual term of years. Each generation should be left free to choose its own course.

4. Public property should not be surrendered to private interests without fair compensation.

5. Municipal subways are not experiments; their success has been demonstrated.

6. Stock watering in public service corporations should not be tolerated. Liabilities should equal approximinately the actual value of the property.

Philadelphia conditions are most discouraging. The cry, "Is there no physician there?" calls forth only negative replies. But there is just cause for rejoicing when even one governor refuses to disregard public interests and when even one State refuses to bow the knee to corporation influences.

NEW YORK'S SUBWAY POLICY.

By William J. Gaynor.

The recent message of Governor Crane, of Massachusetts, vetoing the Boston subway bill, has attracted much attention, and has been generally commended here in New York. There seems, however, to be a singular indisposition among some who profess to commend Governor Crane's action most warmly to refrain from stating just what the Boston scheme which he vetoed was, so that it might be compared, or contrasted, rather, with the manner in which our subways are being disposed of.

The bill which Governor Crane vetoed authorized the Boston Transit Commission to construct a subway under or near Washington street, at a carefully estimated cost of $6,000,000, which was doubtless correct. The Boston Elevated Railway Company was by the provisions of the bill to pay the said amount to the city in cash, and have in return the completed subway for a term of 40 years, during which it was required to keep it in repair.

This is the scheme which Governor Crane vetoed as unjust to the city from a financial standpoint, as giving to "a private corporation a valuable monopoly in a great public thoroughfare," and as "taking away from a generation yet unborn" valuable public rights. And yet to us here in New York the Boston scheme looks by contrast like a great bargain for the city and the public, born and unborn. Stated in one way, it was that the Elevated Railway Company should pay the entire cost of construction, and in return have the subway for 40 years. Stated more in detail, the transit commissioners were to cause the city's bonds to be sold to raise the $6,000,000. At 3½ per cent. interest the city's total expenditure of principal and interest at the end of the 40 years would therefore

have been $14,400,000. Against this the $6,000,000 to be paid in by the company on the completion of the subway would, kept invested in the city's bonds and compounded, have amounted at the end of the 40 years to a total fund of $23,755,800. This would have left the city at the end of the 40 years not only in possession of the subway free and clear, but also with a cash balance of $9,355,800 in its favor on the transaction.

In what way has our great subway system in New York City been disposed of? In a way that Governor Crane, and those who like him stand for the rights of the many in such matters, could not sanction. When we read Governor Crane's prosaic words, and then turn to what our rapid transit board has done and is planning to further do, under the peculiar statute which gives it its powers, we perceive the difference between legislation and official action favoring the community and favoring the few against the community in such matters. Under Governor Crane the Boston tran- its commissioners will certainly not become a steering committee to bring about ways of presenting to a few individuals the greatest public franchises almost as gifts. The charter of the new city of New York in express provisions puts an end to that sort of thing, and many of us thought it was at an end. How long are the provisions of the charter in that respect to be frustrated by our rapid transit commissioners, acting outside of the charter and under the provisions of a separate statute?

The contract under which our rapid transit commissioners have disposed of our system of subways through the boroughs of Manhattan and the Bronx is as follows: The contractor is to construct them for the sum of $35,000,000, to be paid to him by the city as the work progresses. This sum was estimated in advance as the cost by the commissioners; and the statute evidently intends that the contractor shall make no profit on the construction, but only on his lease of the completed work. It is now quite well known, however, that the contractor will make a very large profit on the construction. Such profit is put at upwards of $8,000,000 by competent persons, i. e., at about 25 per cent., the cost having been estimated altogether too high, although so many tunnels had been built in the world that the approximate, if not exact, cost of such work, could, it might well seem, have been easily and ac-

curately figured out in advance, especially (as is the case here) where it is mainly through rock, which is the least costly kind of tunneling.

When the subway is completed it goes to the contractor by the terms of the contract for a term of 50 years, with a right of renewal for 25 years additional. And what profit does the city get in return? Not to exceed one per cent. per annum for such term on the said cost of construction. Instead of the contractor paying the cost of construction, and taking the subway for 40 years in return, as was the Boston scheme which Governor Crane vetoed, the city pays the cost of construction, allows the contractor to make a huge profit thereon, and in addition gives him the completed subway and railroad for 50 years, with a right to an additional 25 years, the yearly rental profit to the city not to exceed one per cent. on the cost of construction. This one per cent. would pay the principal of such cost in a century.

To laud this as a great bargain for the community seems only possible to those who rate the average intelligence of the community as contemptible, and look with disfavor, if not disgust, on any suggestion that the community has a right to share in the income from its public utilities and franchises. It is true that if this one per cent. were put into a sinking fund and compounded it would produce a fund equal to such principal in less than a century; but the showing would still be paltry as a return for such a valuable property, the greatest revenue producing municipal railroad property in the world. If so accumulated at 3½ per cent. during the 40 years' term which Governor Crane condemned, the fund at the end would still lack about $6,000,000 of paying such principal.

But on what principle of finance may the contractor to whom the franchise is farmed out be credited with the interest which the city can get on the amount paid in as rental? The thing seems to be suggested and figured out only by those who desire to make that which is actually a wrong to the community appear to be a good bargain for it. It is true also that the said contractor has to pay to the city yearly the 3 or 3½ per cent. interest which it pays on its bonds issued for construction. Heretofore, in selling these bonds, the controller has "tried the experiment," as he called it, of selling 3 per cent. bonds, which makes a fine saving to the con-

tractor without any loss to the city. But this reimbursement to the city of the interest it pays is no profit to the city; and, besides, if the franchise had been given away for the 50 or 75 years, leaving the donee to build at his own expense, he could not have borrowed the money at such a low rate.

The statute under which our rapid transit commissioners act could scarcely be better drafted to work to the disadvantage of the community. The fundamental wrong of it is that, while the city constructs at its own expense, the public work when completed is not at the city's immediate disposal to lease to the highest bidder for a moderate term of years. The statute permits a contractor to do the work and take a lease for 50 years, with a renewal of 25 years, to be put up for bids at the outset. That it is impossible for such a method to result otherwise than disadvantageously to the community is manifest. Not to mention other reasons, many would bid for the contract to construct who know nothing of operating railroads and do not want to go into that business, and many would bid for a lease of a completed subway railroad who are not contractors and have no facilities for constructing it. For one who would bid in advance for the combined contract to construct and operate for a term of years, many would bid for the contract to construct only, and many others for the lease only.

The latest illustration of what our rapid transit board is doing is furnished by their completed scheme to build at the expense of the city and lease in the same way for 75 years a railroad subway from the terminus of the Long Island Railroad in Brooklyn borough to the East river and thence under the river to a point in Manhattan borough, all in the same manner that the subways in Manhattan and the Bronx have been disposed of. The city charter permitted such subways to be built by railroad companies at their own cost on a franchise of 25 years, with a right to a renewal for 25 years additional, but only on the basis of a valuation to be made at the end of the original term.

Two years ago the Long Island Railroad Company sent an agent to Albany and had the city charter amended by making the term 50 years, with such right of renewal for 25 years. This being accomplished, it applied to our Municipal Assembly for the franchise to construct the said subway from its Brooklyn terminus to

Manhattan. So eager was it to get so valuable a franchise that members of the Municipal Assembly were under the belief that it tried to bribe them to vote for it, if we can credit the public statement of one of them that such an attempt to bribe was actually made. As the member who made the statement and the official who denied it are deemed of equal reputation, the public has to draw its own conclusion from all the circumstances. However this matter may be, the company afterwards withdrew its application.

The reason for this was apparent enough to many at the time, and recently became apparent to every one, when the rapid transit board came forward with its scheme to build such subway at the expense of the city. The company, of course, withdrew its application for the franchise to construct the tunnel at its own cost when the rapid transit commissioners made known to it that they would construct it at the cost of the city. Such tunnel is only a continuation of the said railroad company's tracks (which are also being placed in a tunnel under an act passed at the last session of the Legislature) from their termination in Brooklyn to Manhattan; and there is no other railroad that could use it, if its capacity would suffice for such additional use. There is no possibility whatever of competition for a lease of it. It is literally to be built by the city for the Long Island Railroad Company.

The public statement of the president of the company to be used at the hearing before the mayor that the company would not bid for the contract of course deceived no informed person. It was intended for other persons. The railroad company is not a contractor. In the judgment of competent persons this tunnel at least doubles the value of the Brooklyn branch of the company.

With this object lesson before the public it does not seem possible that the statute which enables such things to be done can be allowed to survive. What does Governor Odell say to it? We know what Governor Crane—the governor of the best governed State in the world—says.

There is one sentence in Governor Crane's message which makes strange reading for certain good people here who profess to tell us that capital would build no street railroads for us except on franchises in perpetuity, or for 50 or 75 years, which is about the same thing. It is as follows: "No street railway (in Boston),

with the exception of certain privileges heretofore assured to the West End Street Railway Company and the Boston Elevated Railway Company for special reasons, has other than a revocable franchise in a public way."

STREET RAILWAYS OF CHICAGO.

To the Civic Federation of Chicago:

Your committee appointed to conduct an examination of the true financial condition of the Street Railways of Chicago, so far as the same is shown by the books of account and corporate records of the various street railway companies, beg leave to report:

Immediately upon their appointment, your committee took up and pressed the negotiations then pending to obtain access to the corporate records and books of account, with the result that Mr. Edmund F. Bard, an expert accountant of this city, was employed to make the examination, the details of which are embodied in his report herewith submitted. The report speaks for itself and bears evidence of the ability and fidelity with which the work was done.

This examination could not have been had without the consent and active co-operation of the street railway companies themselves, and full recognition is given to the courtesies extended and the service thus rendered by their officials to your committee, the Civic Federation and the public generally.

The question of compensation for franchises must necessarily turn on some plan of profit sharing, for it is only the excess of profit remaining after payment of all proper operating and maintenance charges, together with reasonable returns on the investment, which can justly be demanded by the public. The first question is, therefore, what is the amount of actual profit.

This preliminary investigation is the one to which your committee has addressed itself. We believe no similar publication of facts has ever been made, for the reason that never before have street railway books been opened to a similar investigation.

Among the most important facts involved in the problem under consideration must be the amount of capital invested; the mode of issuing the stock, bonds and other securities of the companies; the

mode of charging expenditures and to what extent rebuilding is charged to construction or capital account; the leases or other agreements existing between different companies; the amount of dividends which have been paid; the gross and net income; the cost of property used in operating street railways; the present value of such property; and others which will readily occur.

Obviously, it is only from the books and records of the companies that many of these facts can be ascertained at all; and it seems that not all of them have ever been fully ascertained even by the companies themselves, previous to this examination.

Your committee had the report of Mr. Bard in hand early in 1899, but it was embarrassed by the extreme desirability of having the report accompanied when published by such summaries, explanatory matter, etc., as would render it more easily understood and thus increase its usefulness. Besides, in the opinion of your committee, it is mainly with reference to formulating ordinances relating to the street railways of Chicago, and particularly to renewals of the ordinances soon to expire by limitation rather than the framing of statutes to be passed by the legislature, that this information is most pertinent and valuable.

It is a subject of sincere congratulation that your committee has secured the services of Dr. Milo Roy Maltbie, Editor of MUNICIPAL AFFAIRS, and a well-known writer on municipal and economic subjects, to prepare the accompanying summary. While the particular views expressed by him are his own, we feel sure they will carry added weight for that reason. The committee does not think it desirable, however, at this time to formulate any policy nor to adopt any of the inferences drawn from the facts disclosed. Those facts it deems weighty and important and their present publication timely. This report is submitted in the full confidence that it will aid in the solution and the speedy, just and final settlement of a situation not satisfactory at present from any point of view, and one which is intolerable in many of its phases.

Respectfully submitted.

WILLIAM A. GILES, *Chairman;*
ADOLPH NATHAN,
JOSIAH L. LOMBARD,
JOHN H. GRAY,
NEWTON A. PARTRIDGE.

ANALYSIS OF FINANCIAL OPERATIONS

By Milo Roy Maltbie.

The examination of the books of account and records of the principal street railway companies of Chicago made by Mr. Edmund F. Bard is altogether unique. I know of no other instance in the United States where a street railway company voluntarily has opened its books and permitted an expert accountant to examine in detail all its financial operations. For the first time, the inner workings of several large companies in a large and important city are brought to view. For the first time, we know exactly what it has cost to construct different kinds of street railways, what allowance has been made for depreciation, what franchises are worth, how they have been capitalized, what methods have been adopted in financing these enterprises, etc.

To comprehend the full value and importance of this study, a brief account of the street railway situation in Chicago and of the circumstances under which the examination of the books was permitted, is necessary.

Early Operations.

Street railways were first operated in Chicago in 1859. A period of slow development followed, during which all street cars were operated by animal power, except a few suburban steam dummy lines, with the consequent inadequate service and high operating cost. It was not until 1880 that serious steps were taken to improve the service by the adoption of cable traction.

At this time there were three companies operating in three quite distinct parts of the city, viz.: (1) the Chicago City Railway Company on the South Side, that portion of the city lying south of the river and east of the south branch; (2) the North Chicago City Railway Company on the North Side, north of the river and east of the north branch, and (3) the Chicago West Division Railway Company on the West Side, west of the north and south branches.

Each had a monopoly in its area, due partially to the topographical nature of the city and partially to agreement, tacit or otherwise. The river has always rendered communication between the three sections difficult and expensive. The natural course of traffic is to and from the center of the city along radial lines, very few persons wishing to pass between the West and South Sides or the West and North Sides. (See Exhibit I, § 9.)

The Chicago City Railway Company was the first to adopt cable traction, being forced to do so by the competition of steam roads which paralleled its main lines. The State Street and Cottage Grove Avenue lines were the first converted, beginning about January 1, 1881. The other companies began to adopt mechanical traction several years later—1886 and 1887. Early in the nineties electricity was introduced and now the horse railroad has almost disappeared, and the cable, once so common, is giving way to the trolley.

Duration of Franchises.

The three roads above named, and others subsequently organized, secured most of their present franchises to use the streets in the seventies or eighties, for periods not exceeding twenty years, the legislative act of 1874 having fixed this as the maximum limit. The most sweeping city ordinance was that of July 30, 1883, which extended all of the existing franchises to use the streets to 1903. Several other ordinances have since been passed, notably in 1886 and 1887, but almost without exception the periods have so been fixed as to terminate in 1903, 1906, 1907, or thereabouts. In some cases no limit was stated, and the city may terminate these franchises at any time.

The only exception to the rule that street railway franchises have been granted for short periods, usually about twenty or twenty-five years, is the "Ninety-Nine-Year" Act passed in 1865. This Act extended the life of the Chicago City Railway Co., the North Chicago City Railway Co. and the Chicago West Division Railway Co. to ninety-nine years, the act of incorporation passed in 1859 having restricted it to twenty-five years. It also attempted apparently to extend the franchises to use the streets already granted to ninety-nine years, but the language is not explicit. It certainly was not intended to include all subsequent grants made by

the city. Thus, under the interpretation most favorable to the companies, there are only a few franchises to use the streets, most franchises having been granted since 1865, which could by any possibility run on until 1958, and if the courts should strictly construe the Ninety-Nine-Year Act, all would terminate at dates not more remote than 1916, most of them about 1903.[1]

Legislation Attempted.

The situation in 1897 was briefly this: Most of the franchises were to expire in ten years or less. The cable roads needed, or soon would need, to be replaced by electric lines. But of course capitalists would not furnish the requisite funds upon such short-term franchises. Furthermore, unless the periods were extended, the price of the securities would soon begin to decline, gradually reaching a very low figure. Also, the political situation seemed favorable to the companies; the council and the legislature were apparently friendly.

Bills were introduced into the legislature, currently known as the Humphrey bills, extending for fifty years the franchise rights granted by city ordinances, giving the companies many valuable privileges and requiring in return very little from the companies either in the way of compensation or public control. The corporations at first seemed to have the necessary support to enact the measures, but popular feeling ran so high that it influenced many members of the legislature, and, after a very bitter fight, the bills were voted down by a large majority.

The street railway interests then tried a new measure, the Allen bill, which contained some of the most objectionable features of the Humphrey bill, but which was an improvement in other respects.[2] This bill became a law in the summer of 1897. In November, 1898, elections were held for seats in the legislature, and the whole State was so worked up by the prostitution of public interests for the

[1] The roads have been so unsuccessful in getting statutes or ordinances extending their franchise rights in the streets that they now are attempting to get a judicial interpretation of the Act of 1865, and claim that the 99-year clause applies to all franchise rights. No one else believes this, but it may be that the courts will hold that it applies to all grants previous to 1865, which will leave the roads a few important franchises.

[2] The principal difference between the two bills was that the Humphrey bill itself extended the franchise rights of the companies 50 years; the Allen bill authorized city authorities to do this.

aggrandizement of a few corporations that nearly every man who had supported the Humphrey and Allen bills was either refused a renomination or defeated at the polls. The legislature which met the following winter—1899—repealed the Allen law by a practically unanimous vote before the Chicago companies had derived any benefit therefrom. The city council refused to exercise the power conferred by the Allen law and extend franchises fifty years. Thus, in 1899, the street railroad interests were precisely where they were in 1896, and there was little prospect of getting favors from the legislature or the city council. The public was extremely hostile and suspicious; the council was no longer controlled by "the gang," and the legislature had been taught a lesson it was not likely soon to forget. Evidently the companies were hard pressed; and only five years remained before the expiration of many of their franchises.

All of this experience had taught the companies that the public could no longer be disregarded. Conditions had greatly changed, and the policy of the corporations must change also.

The Scope of the Investigation.

In June, 1898, after the enactment of the Allen law and after the city council had refused to accede to the demands of the companies for an extension of franchises, the Civic Federation invited Mr. C. T. Yerkes, who controlled the North and West Side companies and who was the spokesman for these companies in the controversy, to give an address at a public meeting on the street railway situation. He complied and evinced a strong desire to placate the public and to secure co-operation in formulating and procuring the needed ordinances. Mr. Newton A. Partridge, who was principal spokesman for the Civic Federation, insisted that the city could not be expected to go into a blind pool and approve a plan suggested by the street railway companies when all of the data regarding the operations of the companies were unknown to it. That would be playing with loaded dice. If fair treatment were to be expected, after the public had been so shamefully abused and deceived in the two years just passed, the books of the companies must be opened to examination by an expert.

This Mr. Yerkes subsequently consented to do, recognizing the logic of the argument. A committee of the Civic Federation was

appointed, consisting of Josiah L. Lombard (chairman), Adolph Nathan, Newton A. Partridge, Sigmund Zeisler, William A. Giles, John H. Gray, Paul O. Stensland, Edwin Burritt Smith, Thos. C. MacMillan, E. G. Keith, Franklin MacVeagh, Zina R. Carter, John W. Ela and Wm. K. Ackerman. This committee was reorganized in 1900 with the following members: Josiah L. Lombard (chairman), William A. Giles, Adolph Nathan, Franklin H. Head, John H. Gray, James L. Houghteling, Newton A. Partridge, Edwin Burritt Smith, Sigmund Zeisler, Edmund J. James, Zina R. Carter and John W. Ela. The sub-committee, which had direct management and supervision of the investigation and which signs this report, consisted of William A. Giles (chairman), Adolph Nathan, Josiah L. Lombard, Newton A. Partridge and John H. Gray.

Mr. Yerkes did not speak for the Chicago City Railway Co., as he did not control this road, but when it was found that the other lines were to open their books, the South Side company agreed to do the same. Mr. Edmund F. Bard, a professional accountant, immediately began work, and the results of his investigations are Exhibits I. to VI. He had access to the books of account and corporation records of all the important surface roads. Several of the suburban lines recently constructed are not included, as they have been in operation only a short time. These are relatively unimportant, as their business is small, and the companies treated herein hold the key to the whole situation. Mr. Bard's report covers the Chicago City Railway Co., the North Chicago City Railway Co., the North Chicago Street Railroad Co., the Chicago West Division Railway Co., the Chicago Passenger Railway Co. and the West Chicago Street Railroad Co. It ends with December 31, 1897—the last year for which complete data were available when he began his work. To bring the monograph down to date—July 1, 1901—the facts for the last three years and a half have been gathered from the financial papers, principally the *Economist*. However, few changes have been made since January 1, 1898, and they do not materially alter the figures Mr. Bard gives for 1897.

Face Value of Liabilities.

Of all the many facts established by this examination, those bearing upon the value of the franchises will be most eagerly sought

for. To compute this value one first finds the market value of all outstanding liabilities, or, in other words, the sum which must be expended in order to gain complete control of the companies. It is evident that this can be done only by purchasing at *market* value all outstanding stock, bonds and other evidences of indebtedness. From the amount thus expended there must be subtracted the *market* value of all assets, or the sum which one would receive if all the properties except the franchises were sold. The remainder evidently is the market value of the franchise.

The liabilities of the various companies July 1, 1901, were as follows:

CHICAGO CITY RAILWAY COMPANY

Capital stock	$18,000,000.00
Miscellaneous obligations	232,488.22
Total	$18,232,488.22

CHICAGO UNION TRACTION COMPANY.[1]

Capital stock, preferred	$12,000,000.00
Capital stock, common	20,000,000.00
Miscellaneous accounts payable	2,233,165.00
Total	$34,233,165.00

NORTH CHICAGO CITY RAILWAY COMPANY.

Capital stock	$500,000.00
Bonds, 4½ and 4 per cent	2,997,000.00
Due North Chicago Street R. R. Co	6,172,331.89
Total	$9,669,331.89

NORTH CHICAGO STREET RAILROAD COMPANY.

Capital stock	$7,920,000.00
First mortgage bonds, 5 per cent	4,800,000.00
Bills payable	1,196,200.00
Miscellaneous accounts	91,395.08
Total	$14,007,595.08

CHICAGO PASSENGER RAILWAY COMPANY.

Capital stock	$1,340,300.00
Bonds, 5 and 6 per cent	1,734,000.00
Due West Chicago Street Railroad Co	49,158.49
Total	$3,123,458.49

[1]The Chicago Union Traction Co. has not been examined by Mr. Bard, as it was organized after he made his investigation. These items have been taken from the company's report, as published in the *Investors' Manual* for 1901. The published statement of June 30, 1901, does not give assets or liabilities. The figures given cannot be far from accurate, however.

CHICAGO WEST DIVISION RAILWAY COMPANY.

Capital stock	$1,250,000.00
First mortgage bonds	4,070,000.00
Due West Chicago Street Railroad Co	4,869,998.38
Total	$10,189,998.38

WEST CHICAGO STREET RAILROAD COMPANY.

Capital stock	$13,189,000.00
First mortgage and consolidated bonds, 5 per cer	10,000,000.00
Bills payable, 4½ per cent, miscellaneous	5,169,252.67
Total	$28,358,252.67
A total face value of	$117,814,289.73

Market Value of Securities.

Proceeding now to find the value of these securities, the first question that arises is, What date shall be taken at which to compute their market value? In this résumé I have attempted to make it complete to July 1, 1901, which would suggest the selection of that date. But the quotations for one day may not represent the true state of the market. To avoid this error, the Stock Exchange quotations for the first two weeks in July have been used. This period is particularly well suited for the purpose, as the market was normal, showing no marked fluctuations, and as the period was one neither of boom prices nor marked depression.

The prices secured by averaging the stock quotations for this period are: Chicago City Railroad Co., 209; Union Traction Co., preferred, 60; common, 19; North Chicago Street Railroad Co., 200; West Chicago Street Railroad Co., 100. The stocks of three companies were not dealt in during July 1-13, but accepting the prices used in the Harlan report, which is considered very conservative, we have: North Chicago City Railway Co., 600; Chicago West Division Railway Co., 650; Chicago Passenger Railway Co., 100.

Computing market values at these figures, the liabilities of the Chicago City Railway Co. are worth $37,852,488.22, those of the Chicago Union Traction Co. $13,233,165, in each case accepting the miscellaneous obligations at their face value.

In the case of the North Chicago City Railway Co. only 2,499 shares of stock are to be valued, as the purchase of the stock and bonds of the Chicago Union Traction Co. would itself transfer 2,501 shares which this company took over from the North Chicago Street Railroad Co., when it made the agreement of 1899. (See

infra.) These shares, together with the other obligations taken at par, have a market value of $10,668,731.89.

The Chicago Union Traction Co. also owns $2,000,000 of stock in the North Chicago Street Railroad Co. The market value of the remaining 59,200 shares would be $11,840,000. Adding the other liabilities at face value, we have a total of $17,927,595.08.

Turning to the West Side roads, the liabilities of the Chicago Passenger Railway Co. amount to $2,393,458.49. Seven thousand three hundred shares of stock are owned by the Chicago Union Traction Co., which would be purchased with the stock and bonds of that company, leaving 6,103 to be valued at $100 per share, or $610,300. The bonds, bearing 5 and 6 per cent. interest, are worth more than par, but their face value has been taken.

The Chicago West Division Railway Co. has liabilities yet outstanding valued at $13,001,848.38; 6,251 shares of its stock being owned by the Chicago Union Traction Co., and the bonds being taken at par, although selling at a premium.

Of the West Chicago Street Railroad Co.'s stock, $3,200,000 are owned by the Chicago Union Traction Co. This would leave 99,890 shares at $100 per share, or $9,989,000, plus $15,169,252.67 in other liabilities at par value, or a total of $25,158,252.67.

MARKET VALUE OF LIABILITIES.

Chicago City Railway Co.	$37,852,488.22
Chicago Union Traction Co.	13,233,165.00
North Chicago City Railway Co.	10,668,731.89
North Chicago Street Railroad Co.	17,927,595.08
Chicago Passenger Railway Co.	2,393,458.49
Chicago West Division Railway Co.	13,001,848.38
West Chicago Street Railroad Co.	25,158,252.67
Total	$120,235,539.73[1]

Value of Assets.

From this amount one must subtract the present value of all property, real and personal, except the franchise rights in the streets.

After careful analyses of the accounts, Mr. Bard computes the *total original cost of all property belonging to the six companies, exclu-*

[1] This is a very conservative estimate. The bonds have been computed at par, whereas the latest quotations showed a premium in almost every instance. The assumed market values of stocks are below what they have been selling for. But it is better to give the companies the benefit of all reasonable doubts than to retard private enterprise by harsh treatment.

sive of the franchises, upon December 31, 1897, *at* $41,328,379.72, distributed as follows:[1]

Chicago City Railway Co.	$11,603,960.71
North Chicago City Railway Co.	4,616,909.47
North Chicago Street Railroad Co.	6,060,777.00
Chicago Passenger Railway Co.	1,677,411.29
Chicago West Division Railway Co.	5,783,713.65
West Chicago Street Railroad Co.	11,585,607.60
Total	$41,328,379.72

In order to bring these calculations up to date, I have incorporated the changes made since January 1, 1898, which are few and quite accurately known. They consist principally in the organization of a new company—the Chicago Union Traction Co.—the refunding of a small amount of indebtedness and the construction of a small amount of electric road. With these changes, which alter but one item and add a new one, I find that *upon July* 1, 1901, *the total original cost of all property except the franchises was* $44,922,011.72, apportioned as follows:

Chicago City Railway Co.	12,984,460.71
Chicago Union Traction Co.	[1]$2,213,132.00
North Chicago City Railway Co.	4,616,909.47
North Chicago Street Railroad Co.	6,060,777.00
Chicago Passenger Railway Co.	1,677,411.29
Chicago West Division Railway Co.	5,783,713.65
West Chicago Street Railroad Co.	11,585,607.60
Total	$44,922,011.72

But in this suppositious process of buying all liabilities and of selling all property three cash payments would be made from one company to another, which are not included in the assets above, as Mr. Bard shows that they have nothing to secure them except franchises, so that the assets of two companies would be larger than indicated in these tables. I refer to $6,172,331.89 due the North Chicago Street Railroad Co. by the North Chicago City Railway Co.; $49,158.49 due the West Chicago Street Railroad Co. by the Chicago Passenger Railway Co.; and $4,869,998.38 due the same road by the Chicago West Division Railway Co. These payments would alter the assets somewhat, giving the following results:

[1]In valuing the assets, every piece of property has been included except franchises. Thus the above items include not only the value of the plant and equipment necessary to operate the road, but stocks and bonds owned, accounts receivable, cash on hand, etc. I will return to this point later.

ORIGINAL COST VALUE OF FINAL ASSETS JULY 1, 1901.

Chicago City Railway Co	$12,984,460.71
Chicago Union Traction Co.[1]	2,213,132.00
North Chicago City Railway Co	4,616,909.47
North Chicago Street Railroad Co	12,233,108.89
Chicago Passenger Railway Co	1,677,411.29
Chicago West Division Railway Co	5,783,713.65
West Chicago Street Railroad Co	16,504,764.47
Total	$56,013,500.48

But these computations allow nothing for depreciation since "original costs" were expended. Of course, the books show nothing as to what this depreciation would be, and it is possible only to make a rough estimate. This I have done, always keeping well within conservative bounds. *The estimated present market value of all property, exclusive of franchises,* is $34,750,000, or $45,841,488.76 if one include the amounts due from company to company.[2]

	Value of Franchises.	Amounts includ'g Inter-Company Obligations.
Chicago City Railway Co	$9,800,000	$9,800,000.00
Chicago Union Traction Co	2,000,000	2,000,000.00
North Chicago City Railway Co	2,300,000	2,300,000.00
North Chicago Street Railroad	5,250,000	11,422,331.89
Chicago Passenger Railway Co	1,300,000	1,300,000.00
Chicago West Division Railway Co	4,000,000	4,000,000.00
West Chicago Street Railroad Co	10,100,000	15,019,156.87
Total	$34,750,000	$45,841,488.76

Deducting these amounts from the value of the liabilities as computed above, we have:

Value of liabilities, July 1, 1901	$120,235,539.73
Original cost value of assets, as corrected	56,013,500.48
Value of franchises, upon basis of original cost.	$64,222,039.25
Value of liabilities, July 1, 1901	$120,235,539.73
Estimated present value of assets	45,841,488.76
Value of franchise	$74,394,050.97

[1]This figure is for July 1, 1900.

[2]Attention is called to the fact that I am here speaking of "assets," not "plant" nor "productive assets," but *all* assets, whether they have or have not any value at present.

This amount represents the minimum value, for at every point the companies have been given the benefit of the doubt. The depreciation since time of construction has been estimated at a very low figure. The stock, bonds, accounts receivable, etc., have been estimated at their face value, although, in many instances, their *real* value is almost nothing, for they produce little income and are secured by property of little value. Further, the value of the franchises *to the city* is much greater than $75,000,000, for the market value of the stocks is undoubtedly influenced by the probable early termination of the franchises. If perpetual grants were given, market values would go up, and also franchise values, as a result.

Market Value a Fair Basis.

The above method of computing the value of franchises has so often been criticised that it may not be out of place briefly to state why it is believed to be fair and equitable, and why it has been adopted here.

The question, What is the value of street railway properties? is precisely analagous to the question which confronts the assessor when trying to value real estate, or the business man when attempting to find the worth of any piece of property. Each goes to those who are most familiar with such properties, and wisely so. Then why should we not go to the Stock Exchange, where securities are dealt in by those most competent to judge, and accept the opinion of such experts as shown by actual sales?[1]

The rejoinder that only a small number of shares are sold in a brief period, and that if all the stock were dumped upon the market, prices would be much lower, has no weight. The same would be true of everything. If all the corn were to be dumped upon the Board of Trade at once prices would go to pieces. But that does not cause the dealer to conclude that the "going price" is too high and that he had better "sell short." Far from it; instead, he will almost invariably assert that the present value is as correctly estimated by the market quotations as it is possible to fix it. The small amount of stock sold at current prices indicates that the holders consider it worth more than is bid, rather than that the bids are too high.

[1] In this connection, see citations from Federal and State decisions, pages 390-2 supra.

Corporation lawyers sometimes plead that taking the market value capitalizes good will, skill and ability. The same excuse might be offered by the old settler who, believing real estate in a certain locality will increase in price, secures all of it he can; and when his predictions are justified, argues that his land ought not be assessed at its present value, for by so doing a burden is imposed upon his foresight and skill. Again, it would be equally true that where poor management is shown, *lack* of ability has influenced market values, and that they are lower than they should be and would be ordinarily. It does not seem that such an unusual amount of skill and foresight has been used in the management of the Chicago companies as to call for reduction in the market values to bring the quotations down to the normal level, or to such as the average railway manager would produce. If I am not mistaken, it would be easily possible to secure a considerable number of men, any one of whom could manage the street railways of Chicago as efficiently as they have been managed. It is only when a brilliant manager gives to the securities a higher value than they would have under the average manager that a reduction from the market price ought to be made. This is certainly not the condition of affairs in Chicago at present.

Meaning of "Original Cost."

The methods of valuing the assets will also withstand criticism, and to make perfectly clear what is fact and what is estimate, two sets of figures have been given: (1) original cost; (2) estimated present value, allowance having been made for depreciation.

In working out the figures for "original cost value of assets," Mr. Bard first obtained an exact and complete inventory of all property, not including the franchise, but mileage and kind of track, equipment, rolling stock, real estate, buildings, supplies, stocks and bonds owned, accounts receivable, etc. He then proceeded to ascertain from the books the "original cost" of these various items, viz., the cost when originally purchased.

This amount is obviously not what the property would bring at public or private sale, for most of the items have depreciated, and one—land—may have, probably has in every case, appreciated. And if there are stocks and bonds, it is very seldom that their face value is their market value. It should be emphasized, however,

that the amount above given as the original cost is more than fair to the companies, for all in all the depreciation is considerably greater than the increase in values. The market value is much less than the "original cost" value. If, when the franchises expire, the city should pay the "original cost" value as above computed, the companies would be very generously treated, even more generously than they in justice can expect. This is especially true in view of the fact that the companies have always paid large dividends.

How to Obtain Present Value.

In order to obtain the *present* value of the franchises, it is necessary, therefore, to estimate the extent to which the various properties have depreciated. Now depreciation arises principally from two sources: (1) Wear due to use, (2) introduction of new inventions which make necessary the renewal of machinery and plant before they are worn out.

Depreciation due to wear may be, and often is, provided for by charges for "repairs and maintenance" paid out of earnings. To capitalize such expenses, either directly by charging them to "construction account," or indirectly, by failing to keep the system in good condition, depending upon stock or bond issues to replace worn-out plant, is bad financiering. Wages might be capitalized with equal propriety. The proper way is to keep the plant and equipment fully repaired, and to pay the expense out of earnings. When this is done, no depreciation is chargeable for wear.[1]

The kind of depreciation which is most generally disregarded is that due to the substitution of new inventions for old and less desirable processes. For example, the old horse railroads were still capable of giving fairly good service, as horse roads go, when converted into cable or electric traction; but it was impossible longer to continue animal power. The conversion involved considerable loss—a loss almost equivalent to the original cost of the road, assuming that the road was in good repair. Now this depreciation should have been guarded against and a fund created (equal to the cost of the old track and equipment) so that part of the expense of constructing the new road would have been paid without issuing

[1] It may be urged that it is impossible to keep a road in as good condition as in the beginning. Quite true. But it is possible to produce the same result by accumulating a sinking fund or depreciation account from payments from earnings.

new stock or bonds, or the old stock and bonds retired. The amount of this fund should always equal, as nearly as possible, the value of the plant and equipment displaced. In other words, the capital stock, bonds and other liabilities, less sinking funds, reserve funds, depreciation funds, etc., should always be equivalent to the market value of the properties, excluding the franchise. Of course, it is impossible to keep them *exactly* equal, as no one can forecast just when new inventions will revolutionize existing systems, but there should always be some near approximation. And the amount placed each year to the credit of a depreciation account should be paid from earnings, just as much as expenditures for coal or oil.

Depreciation Not Written Off by Companies.

With these rules as a standard, let us examine the operations of the companies to see how far the principles have been applied.

Comparing the face value of the liabilities outstanding upon July 1, 1901—amounting to $117,814,289.73—with the "original cost value of the assets," placed at $56,013,500.48, there is an excess of $61,800,789.25. This shows that even allowing for no depreciation since the present plants were constructed, there are nearly $62,000,000 which should have been written off long ago. Taking the estimated *present* market value of the assets—$45,841,488.76—a very conservative estimate, the depreciation which has not been provided for amounts to $71,972,800.97 at least.[1] In other words, there is "water" to the amount of $72,000,000 in the liabilities of the companies.

When the operations of the companies are examined in detail, which will be done immediately, one will see how this result was brought about. Expenditures for repairs and maintenance have been paid out of earnings, but these have seldom, if ever, been of sufficient amount to keep the plant in as good condition as when built. Further, no depreciation fund has been accumulated to write off old capital when the new plant was purchased; but, instead, stocks and bonds have been issued to provide the new funds, and

[1] It may be well again to call attention to the fact that this sum does not represent the estimated value of the *plant* and *equipment* of the street railroads *alone*, but includes *securities* held by a few of the companies, cash on hand, bills receivable, etc. Further, the total depreciation upon plant, not including real estate, would be much greater, for from the depreciation of the plant one has to subtract the appreciation of land to get at the net depreciation of the assets.

the old stocks and bonds, incurred for worn-out and antiquated plant, have been retained as part of the liabilities. Thus the present systems are made to earn dividends not only upon existing capital, but upon the "original cost" of scrap iron and refuse. In a few instances stock and bond dividends have been declared without any attempt to cover up the watering process.

Ordinarily in business such a process would be disastrous, retarding progress and ending in bankruptcy, but in the case of municipal monopolies it is different. The street railway business is not a competitive business. Competition has been eliminated in Chicago between the surface lines. Franchises are very valuable, and the watering of stock by failing to write off depreciation has been counterbalanced by the increasing value of the franchises, so that the companies pay interest upon bonds and still make a reasonable profit upon the stock, which really includes at least $72,000,000 of water. It is interesting to note that this amount of water is almost equal to the value of the franchises as estimated above, which shows that the companies have virtually capitalized the franchises.

From one point of view, it matters little whether liabilities are $50,000,000 or $500,000,000. What do the stockholders care whether they get 10 per cent. on $50,000,000 or 1 per cent. on $500,000,000. The net profit is $5,000,000 in each case. But there are serious objections to stock watering. In the first place, there will come a time when readjustment is necessary, when the water must be squeezed out. This is apt to discredit a company and make investors suspicious of its securities. In the second place, the adoption of new processes is retarded, because the capital nominally invested is already so large as to make the negotiation of new issues difficult. In the third place, it throws dust in the eyes of the public, for they do not know how much capital is actually invested, and are inclined to assume that the securities represent the true amount. Thus companies paying 5 per cent. are often left to themselves, and others paying 20 per cent. are discussed and investigated, when, as an actual fact, the former are paying the larger rate of profit upon the true amount of capital invested. This is a principal reason why companies operating franchises have almost invariably so increased their capital stock as to bring the dividends down to the average

rate in other lines of business.[1] Then, in the fourth place, if the securities greatly exceed the value of the plant, the company is in a position to compromise, to give the city something, without in reality relinquishing much. And if dividends are near the going rate in other lines, the cry "confiscation" may be raised whenever the public attempts to make the company give compensation for franchise rights.

Rate of Profit.

Having found the value of the plant and the amount of water in the securities, we are now able to compute the rate of profit upon the amount of capital actually invested.

The gross earnings of the Chicago Union Traction Co.—the lessee of the five roads upon the North and West sides—for the year ending June 30, 1901, were $7,289,139. Other receipts, exclusive of the income from stocks of other street railway corporations in Chicago, amounted to $107,355, making a total of $7,396,494. The expenses amounted to $4,335,155, leaving a profit of $3,061,339. The Chicago City Railway Co. received, during 1900, $5,543,180, expended $3,655,002, and had a profit of $1,888,178. The total gross earnings of both companies were, therefore. $12.939,674, and the profits $4,949,517.

What now is the capital value upon which to compute the rate of profit? In the preceding pages, the "original cost value of the assets" was found to be $56,013,500.48, and the estimated present value $45,841,488.76. But neither amount is the capital which is producing the profit of $4,949,517. Four of the companies include among their assets stocks and bonds of other companies, accounts and bills receivable, inter-company obligations, deposits, etc., which produce very little income and have little value. These items aggregate some $22,000,000, which, subtracted from the "original cost value," would give the following:

Companies.	Cost value of *plant* alone, July 1, 1901.	Estimated market value of *plant* alone, July 1, 1901.
Chicago City Railway Co.....	$12,415,604.37	$9,800,000
Chicago Union Traction Co.....	927,895.00	900,000
North Chicago City Railway Co.....	4,616,909.47	2,300,000

[1] In 1897 at the annual meeting of the stockholders Mr. Yerkes suggested the reduction of dividends on the North Chicago Street Railroad capital stock as a matter of policy to one-half the rate of 12 per cent. per annum then paid by the simple expedient of "doubling the stock."

North Chicago Street Railroad Co.....	1,805,388.65	1,400,000
Chicago Passenger Railway Co.....	1,677,411.29	1,300,000
Chicago West Division Railway Co.....	5,783,713.65	4,000,000
West Chicago Street Railroad Co.....	6,383,147.34	4,900,000
Total	$33,610,069.77	$24,600,000

Eliminating the small income which these stocks, bonds, etc., produced—$30,266—from the gross income as given above, the net income is $4,919,251. This is a profit of 14.6 per cent. upon the original cost value of the plant or of the productive assets, or 20 per cent. upon the estimated present market value of the plant or of the productive assets.

Upon a capitalization of $33,600,000, it follows that the companies could pay the city 12 per cent. of gross income, lay aside 4 per cent. for depreciation in excess of the ordinary charges for repairs and maintenance, and still pay 6 per cent. dividends. Upon a capitalization of $24,600,000, which still is probably in excess of the market value of the plant, the companies could pay the city almost 20 per cent. of gross income, lay aside a depreciation fund of 4 per cent. and pay 6 per cent. dividends. Or, upon a capitalization of $24,600,000, the companies could lower fares to 4 cents and still accumulate a depreciation fund of 4 per cent. a year and pay dividends amounting to 6 per cent. This computation is upon the basis of present traffic, but if fares were lowered to 4 cents, the traffic would increase considerably, and thus enable the companies either to still further lower fares or pay larger dividends.

Present Compensation for Franchises.

Either one of these alternatives could be adopted if the capitalization approximated the market value of the plant, and this also in addition to the following payments made to the city in 1900.[1]

Car licenses.....	$61,440.24
Personal property tax.....	210,955.36
Maintenance of bridges.....	3,000.00
Percentage of receipts.....	1,647.56
Mileage compensation.....	811.67
Extensions of electric light.....	30,000.00
Maintenance of electric lighting.....	10,000.00
	$317,854.83

[1]Real estate taxes are excluded because this property is assessed by the local town assessors and there are no statistics to show what is the total amount. If given, it could not be construed as compensation for franchises, as its value is determined irrespective of franchise rights.

These figures have been furnished by the City Controller's office, to which I am greatly indebted.

In addition the companies are required to pave a portion of the streets, but there is no record of the amount actually expended.

These payments are in a sense compensation for the franchises granted; and if there were no such payments to be made, the market values of the securities would be more than at present. But as they were paid out of gross earnings before market values were fixed, the city evidently receives nothing for $75,000,000 in franchises now being operated by the street railway companies. In other words, private corporations are using $75,000,000 of capital for which they pay not one cent of compensation. Evidently some readjustment of conditions is greatly needed.

Let us now examine each of the seven companies somewhat in detail.

History of the Chicago City Railway Co.

Street railways were first operated in Chicago in 1859—about the same time that they were introduced in other cities—and immediately checked the growing business of the omnibus lines. Upon February 14, 1859, a special act of the legislature incorporated two companies, namely, the Chicago City Railway Co. and the North Chicago City Railway Co. The former took over franchises previously granted to private persons, and soon had constructed lines in the south and west divisions of the city. The latter were sold to the West Division Railway Co. in 1863, and since that time the Chicago City Railway Co. has confined its operations to the South Side—that portion of the city south and east of the Chicago River.

Horse traction was almost universal until 1881, only three miles out of the forty-five being operated by steam upon January 1st of that year. Cable power was introduced the year following and in a few years a large proportion of the road had been converted. It is advisable, therefore, to strike a balance at the close of 1880 and ascertain what had been the financial results up to that date.

Upon December 31, 1880, there were 45.679 miles of horse railroad (the figures for mileage are always given in this study in terms of single track—1 mile double track being equivalent to 2 miles single track); $1,319,062.91 had been paid out for "Construc-

tion," namely, roadbed, track and street paving, or $28,854.89 per mile. Nothing had been credited to this account for depreciation, and this amount represented not only original cost, but changes and reconstruction as well. From the data given in the books of the company, showing the cost of part of the road and of the paving, Mr. Bard has estimated (and his figures seem to be over, rather than under, the actual cost) that the original cost of the roadbed existing on December 31, 1880, was $772,596.08, or $16,913.59 per mile. (See Exhibit I, Sec. 1.)

The total assets and liabilities of the company upon that date were (Exhibit I, Sec. 1):

ASSETS.		
Roadbed	$772,596.08	
Real estate	234,423.63	
Buildings	202,472.75	
Personal property	473,442.29	
Bills receivable	2,606.00	
Cash	3,976.41	$1,689,517.16
LIABILITIES.		
Capital stock	$1,500,000.00	
Bills and accounts payable	152,093.67	
Drivers' deposits	16,977.90	1,669,071.57
Surplus December 31, 1880		$20,445.59

According to the books the surplus was $676,092.43, but no allowance had been made for depreciation, which represents the difference between the two figures.

Since 1881 the conversion to cable and electric traction has continued, until at present only 5 out of the 182 miles owned and operated by the Chicago City Railway Co. are horse road, 35 miles are cable and 142 miles electric. (See Exhibit I, Sec. 8.)

The total cost value of all property existing December 31, 1897, and the outstanding obligations are as follows (See Exhibit I, Sect. 6):

ASSETS.		
Cable road	$2,606,280.24	
Electric road	3,142,425.17	
Horse road	105,741.43	
Leased road	170,000.00	
Illinois Cenral Railroad construction	60,590.92	$6,085,037.76
Rolling stock		1,521,931.60
Real estate		1,993,362.50

Machinery		1,208,853.21
Miscellaneous property		225,919.30
Stock, bonds, accounts receivable		28,768.20
Cash on hand		540,088.14
Total		$11,603,960.71
LIABILITIES.		
Capital stock	$12,000,000.00	
Bonds	4,619,500.00	
Accounts payable	232,488.22	$16,851,988.22
DEFICIT		$5,248,027.51

Since December 31, 1897, only a few changes have been made in the debit and credit sides of the ledger, and the conditions upon July 1, 1901, can be stated with very close approximation. During 1899 and 1900 $1,500,000 in stock were added to the liabilities, and upon July 1, 1901, $4,500,000 more were issued, making the total capital stock $18,000,000. The proceeds of the last issue, together with $119,500 from the treasury, went to retire the bonds then due. Assuming that the remainder produced by these stock sales—$1,380,500—was spent in increasing the value of the assets (an assumption perfectly fair to the company), we have for the original cost value of the assets upon July 1, 1901, $12,984,460.71, and for the liabilities $18,232,488.22. This would leave an excess of liabilities over assets—a deficit—of $5,248,027.51.[1]

This is the sum which is properly chargeable to depreciation and which should have gradually been written off by the company. If account be taken of depreciation since construction (for the roadbed is not as good as when built and cable traction is going out of use and other systems must be adopted before long), the depreciation would be considerably increased. The original cost of the present assets was nearly $13,000,000, but they could not be sold for more than $9,800,000 at the very most, and probably for not more than $8,500,000. Adopting the maximum figure, the deficit would be over $8,400,000. In other words, the market value of the assets is sufficient to pay about $9,800,000 to the stockholders, who nominally should receive $18,000,000. Of course the franchises are further security, and if they should not be terminated for four

[1] Of course the minor items have changed since December 31, 1897, but the reports of the company do not show to what extent, and as they would not affect the figures materially, I have taken them as in 1897.

or five years the profits of the company would be sufficient to pay dollar for dollar, if devoted exclusively to wiping out the deficit—or writing off the depreciation.

The history of the stock and bond issue shows how very remunerative the street railway industry upon the South Side has been. In 1881 the capital stock was $1,500,000, which has gradually been increased to $18,000,000. All of this stock, except possibly $250,000, which was issued as dividends, has been sold to stockholders at par. Without exception, it could have been sold at a premium immediately after issue, which means that a large bonus has been given to the stockholders each time. Including the regular annual dividends of 10 per cent. in 1882 and 12 per cent. each year since, the extra dividends in stock, bonds and cash, and the premiums upon the stock and bond issues, we have total dividends of $37,602,187.50 paid between January 1, 1882, and January 1, 1898, or *an average of* 44.63 *per cent. per annum* for sixteen years. (Exhibit I, Sec. 7.) Since January 1, 1898, $6,000,000 in stock has been issued at par, $1,000,000 in July, 1899, $500,000 in August, 1900, and $4,500,000 July 1, 1901. The market price of the stock after the first issue was 277, after the second 242, and after the third 209. The bonus upon the 1899 issue was, therefore, $1,770,000; upon the 1900 issue, $710,000, and upon the 1901 issue, $4,905,000. The percentages for the respective years, upon the basis of stock outstanding when sales were made, were 14 3-4, 5 6-13 and 36 1-3 respectively. Adding the regular quarterly dividends for these years—12 per cent. per annum—the total dividends would be 26 3-4 per cent., 17 6-13 per cent. and 48 1-3 per cent., respectively, an average of nearly 31 per cent. for the last three years.

It is to be remembered, however, that the stock contains at least $8,400,000 of water; the present value of the productive assets—the real capital—being not more than $9,800,000. The net earnings for 1900 were $1,888,000, which, upon a capitalization of $9,800,000, would yield dividends of over 19.2 per cent. Thus, the Chicago City Railway Co. could give the city 20 per cent. of its gross earnings and still pay 8 per cent. dividends upon the actual capital invested. Or, it could pay the city 16 per cent. of gross earnings, lay aside 4 per cent. for depreciation and still pay 6 per cent. dividends. Or, it could reduce fares to 4 cents on the basis of the present traffic

and still pay 8 per cent. dividends upon the actual capital invested. Or, it could sell 6 tickets for 25 cents and lay aside 4 per cent. for depreciation and 6 per cent. for dividends. The increase in traffic which would follow this reduction of fares would probably render a still further reduction possible.

North Side—North Chicago City Railway Co.

The first company to operate a street railroad upon the North Side—the North Chicago City Railway Co.—was incorporated February 14, 1859, as seen above. The great fire of 1871 practically destroyed all of its property, but reconstruction was at once begun, and by May 24, 1886, there were in operation 44.774 miles of track —horse traction; $2,054,277.65 had been expended for construction, real estate, buildings, rolling stock, etc. Yet the capital stock was only $500,000. Of the bonds outstanding—$1,247,000—at least $750,000 had been issued to stockholders as dividends; and of the remaining $497,000 a considerable portion had probably been issued in a similar way. Thus, even assuming that the stock had fully been paid in, it is evident that the road had been built principally out of profits. (Exhibit II, Sec. 2.)

The original cost value of the plant upon May 24, 1886, exclusive of the franchise, is shown by the trial balance to be (Exhibit II, Sec. 2):

1.	Real estate	$245,188.37
2.	Personal property, inventoried at	482,739.66
3.	Buildings	418,024.84
4.	Construction	908,324.78
	Total	$2,054,277.65

Allowing for appreciation and depreciation, the plant was not worth more than $1,500,000 and perhaps could not have been sold for more than $1,250,000. The market value of the stock was about $500 per share and the franchises were worth at least $2,100,000, and probably nearer $2,500,000.

Such was the financial condition of the North Chicago City Railway Co. upon May 24, 1886, when an agreement was entered into with the North Chicago Street Railroad Co., which had been incorporated six days previous, and which was controlled by Messrs.

Yerkes, Widener, Elkins and their associates.[1] In brief, this contract provided for the leasing of the property and franchises owned by the North Chicago City Railway Co. for a term of 999 years, in return for which the North Chicago Street Railroad Co. agreed to pay the interest on all bonds and mortgages of the lessor outstanding and to be created, and a quarterly payment of $37,500. The lessee further agreed to construct a cable road on North Clark street, the *actual* cost of which was to be borne by the lessor, payment being secured by a mortgage bearing interest at 6 per cent. per annum, payable semi-annually. Additional lines and improvements were to be constructed as mutually agreed, to be paid for as above or by bonds secured by a mortgage, at the option of the lessee. A concluding clause provided that when the North Clark Street cable road should be completed, the lessee should pay to the lessor company $500,000 in cash or in capital stock at the option of the former company—a sum just equivalent to the capital stock of the North Chicago City Railway Co. (Exhibit II, Sec. 1.)

These terms were apparently very favorable to the old company, as the quarterly payments were equivalent to a 30 per cent. annual dividend, payable quarterly, upon the total capital stock. Doubtless the company also considered the $500,000 bonus as an additional compensation equivalent at least to 6 per cent. annual dividend, and in case the North Chicago Street Railroad Co. should be prosperous, equivalent to a 10 or 12 per cent. annual dividend, or more, making a total of 40 per cent. or more upon the actual capital stock of the old company.

Comparing the cash quarterly payments, the interest on the bonds and the bonus with the probable market value of the plant, one finds the price paid equivalent to at least 16 per cent., and possibly 18 per cent., on the maximum estimate of $1,500,000, or 18½ per cent., and possibly 21 per cent., upon $1,250,000. This was a very liberal sum, but probably not more than the value of the franchises warranted.

One wonders at first glance why the old company should desire to lease its property even upon such favorable terms when it was

[1] Care must be taken to distinguish between the North Chicago *City Railway* Co. (N. C. C. R. Co.) and the lessee company, the North Chciago Street Railroad Company (N. C. S. R. R. Co.).

in such good financial condition, and why the new company should be willing to pay such a high price for the properties even though it were not more than the market would warrant. The preamble to the agreement furnishes only a partial explanation. It states that the old company considered a change in the motive power wise and necessary. But apparently it did not have the courage to make the experiment. This the new company was willing to do, and upon terms that appeared to be very favorable to the old company. The operations of the lessee under the agreement will show how it evaded the strict letter of the contract and how it burdened the minority stockholders with a very large debt. Possibly the North Chicago Street Railroad Co. had prearranged this course of action.

On May 24, 1886 (the date of the agreement between the two companies), the lessee—the North Chicago Street Railroad Co.—made a contract with the United States Construction Co. to build the North Clark street cable line. Under this agreement, which was very loosely drawn, and other agreements made in 1886 and 1887, the United States Construction Co. completed work for which it received $4,500,000 in capital stock in the new road, $998,000 in 4½ per cent. bonds of the old company and $710,908.39 in cash from the new road, a total of $6,208,908.39. The cost to the Construction Company, according to the very liberal estimates of Mr. Bard, could not have exceeded $3,141,741.32. (Exhibit II, Secs. 4 and 5.)

Thus, if the securities were selling at par there would be a profit to the United States Construction Co. of $3,067,167.07. But the amount is still larger, for almost immediately the stock went to a premium, and since 1892 has been worth over $200 per share.

This large profit was charged against the North Chicago City Railway Co. in apparent violation of the contract which required the North Chicago Street Railroad Co. to keep an exact account of the cost and to debit the lessor that amount only. It may be claimed that the cost was $6,200,000, as that was the sum paid the United States Construction Co. by the lessee. But the contract was merely a subterfuge, as the United States Construction Co. originally owned 49,990 of the 50,000 shares of the capital stock first issued, and the same men controlled both companies. (Exhibit III, Sec. 3.)

The improvements paid for by the North Chicago Street Railroad Co., without the intermediation of the Construction Company, amounted to $1,634,421.54, to which should be added $79,001.96 of floating debt assumed by the lessee, making the total expenditures of the lessee for the account of the lessor $7,922,331.89. The lessor company has paid $1,750,000 in bonds, leaving a balance still due the lessee on December 31, 1897, of $6,172,331.89. (Exhibit II, Sec. 5.)

The original cost value of the assets existing December 31, 1897, were as follows:

73.329 miles single track road	$3,184,280.14
Real estate	245,188.37
Buildings	1,187,440.96
Personal property, per inventory	489,489.66
Total	$5,106,399.13

The outstanding liabilities upon the same date were:

Capital Stock	$500,000.00
First mortgage 6 per cent. bonds	500,000.00
Consolidated 4½ per cent. mortgage bonds	2,497,000.00
Due N. Chi. St. R. R. Co. for expenditures for betterments	6,172,331.89
Total	$9,669,331.89

showing an excess of $4,562,932.76 over the original cost value of existing plant. But as the cost value is only $2,109,399.13 in excess of the outstanding bonds, which are a first lien upon the property, there remain $4,062,932.76 of the claim of the lessee and nothing but the franchise to secure it and the claims of the stockholders. (Exhibit II, Sec. 8.)

Indeed, the company is in a much worse condition than these figures indicate, for in taking the cost value of the assets at $5,106,399.13, no allowance was made for depreciation, which would be a very considerable sum on every item except the real estate. It is very much doubted whether the market value of the assets, exclusive of the franchise, is sufficient to liquidate the outstanding bonds.

North Side—North Chicago Street R. R. Co.

The financial condition of the North Chicago Street Railroad Co. is considerably better than that of the road just treated. Between May 24, 1886, and December 31, 1897, it had expended on its own account $6,874,589.08, of which $4,255,388.35 represent invest-

ments in stocks and bonds of other companies, accounts and bills receivable and other assets which are not used directly in the operation of the road, leaving a total expenditure for *plant* of $2,619-200.73. (Exhibit III, Sec. 4.) The cost value of the *plant* as it existed on December 31, 1897 (excluding again the stocks, bonds, etc.), was $1,805,388.65, showing a depreciation of $813,812.08. (Exhibit II, Sec. 5.)

The original cost of all the property as it existed December 31, 1897, was $6,060,777, to which should be added $2,109,399.13—the excess of the estimated original cost of the North Chicago City Raliway Co. properties over outstanding obligations, which the North Chicago Street Railroad Co. might claim as a part payment of the amount due it, making the total assets $8,170,176.13. (Exhibit III, Sec. 5.) There are outstanding liabilities amounting to $7,407,597.08, leaving $762,581.05. This book value and the value of the franchise constitute the security of the $6,600,000 of capital stock. Here again no allowance has been made for depreciation upon existing plant, which would be considerable, and if allowed for, would cause liabilities to exceed assets considerably. (Exhibit III, Sec. 6.)

Notwithstanding the lack of real property as security, the stocks of the two companies have always been valuable. From 1886 to December 31, 1892, the company paid dividends, including stock dividends and bonuses as well as regular dividends, averaging 6.86 per cent. upon the capital stock. From 1893 to 1897 they averaged 25.24 per cent. per year. The total amount of extra dividends in the shape of stocks and bonds amounted to $3,548,000, the regular dividends to $5,764,253.50, a total of $9,312,253.50. To this amount should be added 30 per cent. on the $249,900, the outstanding stock of the North Chicago City Railway Co., or a total, up to December 31, 1897, of $822,670. The aggregate profit of the stockholders of both companies was, therefore, $10,134,923.50 from May 24, 1886, to December 31, 1897—not a very bad showing for roads whose property, exclusive of franchise rights, would not sell for a sufficient amount to meet outstanding obligations. (Exhibit III, Sec. 7.)

Since 1897 no changes have been made in the assets and liabili-

ties of the North Side lines. In 1899 they were leased to the Chicago Union Traction Co., but this will be treated of later.

To complete the history of the North Side roads it only remains to show the relations of the North Chicago City Railway Co., the North Chicago Street Railroad Co. and the United States Construction Co. A majority of the stock of the first company (2,501 shares) was purchased by the North Chicago Street Railroad Co. in 1886. This company in turn was controlled by the United States Construction Co., which would not produce its books for examination; but if current report and financial papers are to be believed, the Construction Company was controlled by Messrs. Yerkes, Widener, Elkins and their associates. Thus, as far as the majority interest of the lessor is concerned, any financial deal between the two companies would simply be taking money from one pocket and putting it in another. But not so as to the minority interest—the stockholders who did not also hold stock in the United States Construction Co.; they would be burdened with a heavy debt, and such was possibly the purpose of the lessee or its backer, the United States Construction Co. The agreement of May 24, 1886, was plain, but as the Construction Company virtually controlled the majority of stock in the company being manipulated, it would have been difficult, even if the minority stockholders desired, to know what was going on and to remedy it. Indeed, the issuing of the stock of the lessee before the United States Construction Co. had a title to it in order that the latter company might speculate in it before it was paid for, is characteristic of the way in which the North Side companies have been manipulated in the interest of a few individuals.

West Side—Chicago Passenger Railway Co.

The first street railway built upon the West Side was constructed by the Chicago City Railway Co., which transferred its lines to the Chicago West Division Railway Co. in 1863. But the present relations of the various companies can most easily be understood if one begins with the fourth company organized, viz., the Chicago Passenger Railway Co. This company was incorporated February 12, 1883, and in 1888, when an agreement was made with the West Chicago Street Railroad Co., it owned 29.79 miles of horse railroad. Its capital stock was $1,000,000 (10,000 shares) and the

outstanding bonds amounted to $400,000. (Exhibit IV, Sec. 1.)

The first agreement between the Chicago Passenger Railway Co. and the West Chicago Street Railroad Co., under date of November 16, 1888, stipulated, among other things, that the former should convert the horse road into a cable line for certain specified distances upon Desplaines, Washington and Franklin streets. The two companies were to use this line jointly, and as a consideration the lessee was to pay the entire cost of construction and 5 per cent. per annum of the amount which should be paid by the Chicago Passenger Railway Co. in rebuilding and repaving the Washington street tunnel. The same company was also to provide for the traction of the cars of the Chicago Passenger Railway Co. through the tunnel and around the loop into the central portion of the city; the amount charged therefor to be a reasonable sum as later agreed upon. The duration of the contract was fifty years. (Exhibit IV, Sec. 1.)

This agreement was not satisfactory and upon March 15, 1889, just four months later, it was so amended as to require the lessor to issue 6 per cent. bonds to fund its floating indebtedness, to pay for improvements contracted for (probably referring to the obligations incurred under the preceding agreement), and to pay for any construction work under the present agreement, except the cable road provided for above. All of these bonds were to be guaranteed by the lessee, which thereafter was to receive the gross receipts and to pay all operating expenses. As remuneration, this company was to pay the lessor $25,000 semi-annually, being 5 per cent. per annum on the outstanding stock. The other provisions were so modified as to release the Chicago Passenger Railway Co. from paying for traction of its cars and the West Chicago Street Railroad Co. from paying the 5 per cent. rental. Upon April 12, 1897, the lease was extended, making the full term sixty-five years, expiring March 14, 1954. (Exhibit IV, Sec. 1.)

The similarity between this operating agreement and the one made in 1886 between the North Side companies suggests that both were conceived by the same brain. Such, indeed, was the fact, for the West Chicago Street Railroad Co. was dominated by the same men who controlled the United States Construction Co. and the North Chicago Street Railroad Co. A further similarity is to be

seen in the fact that a majority of the stock of the lessor was owned by the lessee at the time the agreements of 1888 and 1889 were consummated. Thus the minority stockholders were the ones principally affected, as in the case of the North Side company.

The operations under these agreements cannot be definitely stated, as the books of the company are inaccessible. But the following estimates are sufficiently accurate for all practical purposes. Since 1889 4.4 miles of horse railroad have been constructed at a cost of $104,737.66, making the original cost of the 34.19 miles of horse railroad $814,504.67. Upon December 31, 1897, there remained 2.38 miles, which cost $56,705.12, leaving $757,799.55 to represent depreciation due to conversion of the road into cable and electric traction. (Exhibit V, Sec. 4.)

The original cost value of the assets existing December 31, 1897, was as follows (Exhibit IV, Sec. 4):

2.836 miles single track cable	$273,547.60
0.314 miles single track cable	43,715.51
2.38 miles single track horse railroad	56,705.12
28.585 miles single track electric railroad	542,240.07
Real estate and buildings	761,202.99
Total	$1,677,411.29

The outstanding liabilities upon the same date were (Exhibit IV, Sec. 5):

First mortgage 6 per cent. bonds	$400,000.00
Consolidated 5 per cent. bonds	1,334,000.00
Capital stock	1,340,300.00
Due W. Chi. St. R. R. Co	49,158.49
Total	$3,123,458.49

Upon the face of these figures liabilities exceed assets to the extent of $1,446.047.20. It is quite likely that a re-appraisement of the real estate would reduce this deficit considerably, perhaps to $500,000. (Exhibit IV, Sec. 5.) But as no allowance has been made for depreciation, the original cost value being given above, the present value of all assets does not exceed $1,300,000, allowing for appreciation of real estate, and probably is less.

West Side—West Division Railway Co.

Returning now to the West Division Railway Co., the books show that it was incorporated February 21, 1861. About 1863 it purchased the West Side lines of the Chicago City Railway Co.

and their extensions to the business center of the city, paying about $200,000, according to current report. Upon October 20, 1887, the date of the agreement with the West Chicago Street Railroad Co., the West Division Railway Co. owned 98.45 miles of horse road. The construction cost was $1,935,131.52, or $19,655.98 per mile. This comparatively low figure was due principally to the practice of paying for extensions and betterments out of surplus earnings, and to the small amount of paving and poor character. Only 14 out of a total of 98.45 miles of track were paved, and those mostly with cheap macadam. Upon October 20, 1887, the original cost of all assets, including 7,300 shares of Chicago Passenger Railway Co. capital stock, was $5,468,071.17. The total outstanding liabilities amounted to $4,816,511.06, showing a surplus of $651,560.11. (Exhibit V, Sec. 2.)

Computing the value of the securities at market rates, the value of the physical property at $3,700,000 and the miscellaneous accounts at their face value, one finds that the franchise was worth at least $5,800,000, and possibly over $6,000,000.[1]

The West Chicago Street Railroad Co. was incorporated July 19, 1887, and upon the following November 11, when a lease of the Chicago West Division Railway was proposed and approved, 99,497 of the 100,000 shares of stock were voted by C. T. Yerkes. At that time Messrs. Widener, Elkins and Kemble apparently owned 6,251 of 12,500 shares of stock of the Chicago West Division Railway Co., one share more than one-half of the entire number. Thus the lease was virtually made by Mr. Yerkes upon one side and Messrs. Widener, Elkins and Kemble upon the other, although nominally the lessee was the Chicago West Division Railway Co. (Exhibit VI, Sec. 1.)

The language of the agreement was somewhat vague and involved, but in the light of subsequent operations, its provisions are quite clear. In substance it dealt with three matters: (1) The

[1]It is difficult to select the proper price at which to estimate the stock. During 1886 the quotations ranged about $400 per share bid and $425 asked. In May, 1887, they had risen to $475 bid and $600 asked. The net earnings for ten months preceding the signing of the agreement were at the rate of 35 per cent. per annum upon the capital stock, which would give a market value of $700 per share upon a 5 per cent. basis, or $650 conservatively estimated. The above franchise value has been computed upon a $475 basis; but, assuming that the stock would bring $650 per share, the franchises would be worth $8,000,000 instead of $5,800,000. (See Exhibit VI., Section 6.)

construction of a cable road; (2) the lease of the entire property of the Chicago West Division Railway Co. to the West Chicago Street Railroad Co.; (3) the transfer of the 6,251 shares owned by Messrs. Widener, Elkins and Kemble. As to the first, it was stipulated that the lessee should build not less than 17 miles of cable road, and for the purpose of an accounting, should keep an accurate account of the cost of all permanent improvements. As regards the second, the franchises and property of lessee, including the 7,300 shares of the Chicago Passenger Railway Co., were to be leased to the West Chicago Street Railroad Co. for 999 years, in return for which the lessee was to pay the lessor company 35 per cent. per annum upon the capital stock, or $109,375 quarterly,[1] and assume the outstanding bonded debt of the old company, amounting in all to $4,070,000.[2] As compensation for the transference of the 6,251 shares of stock and the negotiation of the lease, Messrs. Elkins, Widener and Kemble were to receive $4,100,000 in 5 per cent. 40-year bonds of the lessor and $6,000,000 in cash or capital stock at the option of the lessee. (Exhibit VI, Secs. 1-5.)

Upon its face, the agreement seems to be very fair to all parties concerned, except possibly the lessee. Messrs. Elkins, Widener and Kemble certainly had no cause for complaint, as they received $10,100,000 in securities, worth more than par, for negotiating the lease and for 6,251 shares of stock which could not have cost them more than $4,375,700 ($700 per share), and probably considerably less, even if they did not secure an option, which they could have done early in 1887 at very little expense. Five million dollars for negotiating the lease is a very remunerative compensation, and it is not easily explicable why Mr. Yerkes should have agreed to such an enormous and apparently uncalled for expense, unless he expected to recoup his losses by subsequent operations, or had an exaggerated idea of the value of the West Side properties, and could not secure control without accepting these rather hard terms. Probably there is some truth in each of these suppositions,

[1]This would be equivalent to an annual payment of 17 per cent. upon the maximum estimated value of the plant, exclusive of the franchise.

[2]One may wonder at the apparent inconsistency between amount of the bonded debt given here and upon page above. The additional amount here given—$1,052,000—was issued during the transferrence of the property in order to fund floating debt and settle accounts.

LIBRARY OF THE UNIVERSITY

but $10,100,000 for stocks having a face value of $625,100 is an enormously high price; $1,615 for a share of stock whose face value is $100, and worth in the market not more than $700, is an unusual offer, and most men would sell at a much smaller profit. And when a majority of the stock had been secured in the open market, any sort of a contract could have been made between the two companies, for Mr. Yerkes would then control both companies. However, Mr. Yerkes probably depended upon subsequent operations to offset the large sum paid by his company, and we shall see that he did not miscalculate.

The lessor certainly received all its properties were worth. Its bonds were all guaranteed, and later obligations of the lessee were substituted for them relieving it of all liability in this direction. Thus the stockholders were to receive 35 per cent. dividends clear. This was their full market value and indeed somewhat more, if we take into consideration the fact that most of the franchises expire in 1903 and 1905, and practically all of them, if the 99-year act of 1865 should not be upheld by the courts.

The only offset is the cable road which the agreement provided for and seemed to stipulate should be paid for by the lessor at cost. But the agreement was never fully carried out, the amount charged was excessive and although the bonds are guaranteed and the interest paid by the lessee, a debt has been incurred which was much larger than anticipated and which must be settled when the agreement is terminated. This was one way in which Mr. Yerkes expected to get even, for he was a stockholder in the United States Construction Co., which did the work and received the unusually high price. This agreement will be given further on, when the operations of the lessee are fully treated.

The books of the West Chicago Street Railroad Co. contain no detailed account of the 17 miles of cable road to be constructed. They merely show that on November 17, 1887, a contract with the United States Construction Co. was authorized for a road upon certain streets, for which $4,000,000 in cash or stock, at the option of the railroad company, was to be paid. Under this contract 17.47 miles were built, but just how much of it was chargeable to the lessor it is impossible to say. (Exhibit VI, Sec. 2.)

The financial condition of the company upon December 31, 1897, is shown by the following summaries. Of the original road and the extensions there existed upon that date (Exhibit V, Sec. 5):

6.26 miles single track horse road	$123,046.43
68.68 miles single track electric	825,163.04
68.68 miles paving, relaid	411,495.93
11.655 miles single track cable road (actual)	1,124,188.06
.321 miles single track cable road (actual)	44,690.05
13.404 miles single track cable road (estimated)	1,292,888.56
Real estate on Oct. 20, 1887	449,158.73
Buildings on Oct. 20, 1887	927,984.00
Western Ave. power house	520,455.65
Halsted St. car house alterations	11,803.70
New building, Clybourn place	52,839.50
Total	$5,783,713.65

The outstanding liabilities were as follows:

Capital stock	$1,250,000.00
First mortgage bonds	4,070,000.00
Due West Chi. St. R. R. Co	4,869,998.38
Total	$10,189,998.38

showing a deficit of $4,406,284.73, $1,858,738.60 of which was due to the substitution of cable and electric traction for the old horse railroad, and the remainder—$2,547,501.13—represents the loss by the transfer of the operating plant to the lessee and the amount, which the United States Construction Co. overcharged the lessee for construction work and which overcharge this company debited to the account of lessor, contrary to the agreement of 1887.

The actual deficit is much larger than that shown by the books. The present worth of the plant is not more than $4,000,000. This would swell the deficit to $6,200,000. In other words, the physical property would about wipe out the bonds, and the stockholders would have nothing but the agreement with the lessee to fall back upon. As long as this remains unimpaired they have no fault to find, for their 35 per cent. dividends are being declared regularly. But in case the contract should be terminated for any reason, they would be face to face with a large debt, nearly $5,000,000, and only a few franchises with which to pay it. If most of these should be terminated in 1903 and 1905, little could be realized from this source, certainly not enough to pay the debts and reimburse the stockholders.

West Side—West Chicago Street R. R. Co.

The West Chicago Street Railroad Co. was incorporated July 19, 1887, and almost immediately leased the franchises and property belonging to the two existing lines upon the West Side, as stated in the preceding pages. Its capital stock was $10,000,000, of which $9,949,700 was voted upon by Mr. Yerkes as late as November 11, 1887. (Exhibit VI, Sec. 3.)

Among the first operations of the company, after the lease of 1887 with the Chicago West Division Railway Co. had been approved, was the making of a contract with the United States Construction Co., controlled by Messrs. Yerkes, Elkins, Widener and their associates, for a cable line, which is set forth above. The methods by which the debt of $4,000,000 was paid become important at this point, as they reveal the way in which the capital stock was finally issued.

According to the books, $4,000,000 in cash was paid to the United States Construction Co., which deposited $4,000,000 in capital stock of the railroad company with Mr. George E. Newlin as trustee, with the understanding that it should be paid back as the work was completed. The last payment of stock was made October 22, 1890. Other entries state that the United States Construction Co. subscribed for $4,000,000 in capital stock of the West Chicago Street Railroad Co. and paid for it in cash. This was undoubtedly a mere subterfuge. Four million dollars in capital stock was paid for the cable road, and not in cash, as represented. Mr. Bard has gone fully into this, and his reasons for accepting this conclusion and disbelieving the book entries are given in Exhibit VI, Sections 2 and 3.

The remaining $6,000,000 of the stock was issued in the following way: According to the contract with the Chicago West Division Railway Co., $6,000,000 in cash or stock was to be paid Messrs. Widener, Elkins and Kemble for negotiating the lease. The books state, also, that these three persons subscribed for $6,000,000 capital stock of the new company, and paid for it in cash. The money was immediately repaid to them, $5,000,000 on account of the lease and $1,000,000 in advance as part payment for the 6,251 shares of the Chicago West Division Railway Co. stock. For some time a special account, "Leasehold," stood upon

the pages of the ledger with a debit balance of $5,000,000. Later, $4,000,000 was transferred from general "Construction" account and a new account opened with a debit of $9,000,000, and it still existed December 31, 1897. Of this sum not more than $4,000,000 of stock was actually issued for cash or property, and the payment of $4,000,000 for 17.47 miles of cable road is an unusually high price. Some allowance might be made, if the stock were at a discount or seemed likely to sell below par when issued. But there is sligh probability that this factor had much influence. The very first Stock Exchange quotations, those of June 14, 1889, were above par. And, indeed, most of the stock, and possibly all of it, was issued before the 6,251 shares were delivered or the cable road constructed; so that the persons holding it could have sounded the market before obligations to any considerable amount had been assumed by them. (Exhibit VI, Sec. 4.)

How shall we class the $1,000,000 which the books state were given in part payment for the stock to be transferred? Is it "water" or a legitimate capital expenditure? This raises the question, How much was paid for the 6,251 shares of the stock, $4,100,000 in bonds or $4,100,000 in bonds and $1,000,000 in stock? According to the earning power of the Chicago West Division Railway Co. for ten months preceding the leasing of the road, the dividends would be 35 per cent. per annum. The stock would, therefore, have a market value of about $700 per share. Six thousand two hundred and fifty-one shares would represent a market value of $4,375,700. If $5,100,000 were paid at the rate of $815.86 per share, the company would have paid more than the market value, which seems very unlikely. Again, the Stock Exchange quotations seem to indicate that the average value of the stock at the time the negotiations were *closed*, about June, 1887, was about $650 per share. This would give a total value to 6,251 shares of about $4,100,000. Further, the plans of financing the North and the West Side roads were similar in every other respect, which would strongly lead one to believe that the similarity continued throughout. Messrs. Elkins, Widener and Kemble could well afford to transfer the stock without making a profit upon the transaction at once, when they received $6,000,000 of stock for negotiating the lease. But very likely they made a profit on the

stock transaction, which would lessen still more the probability of $1,000,000 in stock being part payment for the 6,251 shares. Thus, one is forced to the conclusion that at least $6,000,000 out of the $10,000,000 original capital stock was "water," and if one goes back of the contract with the United States Construction Co., which is probably an excuse for violating the agreement between the Chicago West Division Railway Co. and the West Chicago Street Railroad Co., about $8,000,000 is "water." (Exhibit VI, Secs. 6 and 7.)

From the date of organization to December 31, 1897, the West Chicago Street Railroad Co. expended $29,615,628.13. The cost value of the property existing upon the latter date was $16,317,139.34, leaving a depreciation of $13,298,488.79.

	Total expenditures.	Cost value assets, Dec. 31, 1897.	Depreciation.
Chicago Passenger Railway.....	$1,156,749.52	$859,503.18	$297,246.34
Chicago West Div. Railway.....	14,969,998.38	3,872,028.56	11,097,969.82
West Chicago Street Railroad...	13,488,880.23	11,585,607.60	1,903,272.63
Total	$29,615,628.13	$16,317,139.34	$13,298,488.79

Analyzing the depreciation of the companies, one finds that of the $297,246.34 belonging to the Chicago Passenger Railway Co., $104,737.66 was due to the removal of 4.396 miles of *new* horse road and the construction of a trolley road in its place. The remainder, $192,508.68, is the difference between the contract price and the estimated cost of 2.836 miles of cable road built by the United States Construction Co. (Exhibit VI, Sec. 8.)

Perhaps a few words justifying this procedure will not be out of place here, as the plan has generally been followed of estimating the actual cost when the amount charged by the United States Construction Co. has seemed to be exorbitant in comparison with other lines built by other companies. The United States Construction Co. was controlled by Messrs. Elkins, Widener, Yerkes and their associates. These same parties, either directly through the United States Construction Co., which often held stock in the companies with which it made contracts, or indirectly by owning stock in these companies personally, controlled a majority of the stock of the railroad companies. This enabled them to make any sort of an agreement. To assume that a contract made under such conditions would necessarily be fair to all parties and repre-

sent what would be agreed upon by two entirely disconnected parties, requires too implicit confidence in human nature. Thus, when we find that the price agreed upon is very much more than the cost of similar work done by other companies, even allowing for fair contractor's profits, it is doing no injustice and, indeed, it is necessary, if one is to get at the worth of the plant, to estimate the original cost of the present plant at what other companies would have performed the service. This is what Mr. Bard has done, and in accepting his figures, I approve his methods.

The depreciation set opposite the Chicago West Division Railway Co.—$11,097,969.82—is distributed among the following items: Difference between contract price and estimated cost of the 13.404 miles of cable road built by the United States Construction Co., $915,067.26; 1.96 miles of horse road converted into trolley road, $46,698.51; miscellaneous expenditures, $36,-204.05; price paid for negotiating lease, $5,000,000; cost of 6,251 shares of Chicago Passenger Railway Co. stock, which have no physical property as security, $5,100,000; total, $11,097,969.

The depreciation of the West Chicago Street Railroad Co. amounted to $1,903,272.63, apportioned as follows: The difference in contract price and estimated cost of the 1.23 miles of single track cable road built by the United States Construction Co., $85,069.91; 50.32 miles single track horse road converted into trolley road, original cost $1,132,178.36, deduct for street pavement relaid $261,-781.75—$870,396.61; depreciation in equipment, $286,192.11; miscellaneous items charged to construction account, $661,614; total, $1,903,272.63.

Including the property transferred under the agreements between the companies, the final settlement as to the 6,251 shares of stock in the Chicago Passenger Railway Co. and the cash on hand December 31, 1897, the above summary would be changed to read (Exhibit VI, Sec. 9):

	Book value assets.	Cost value.	Appreciation.
Chicago Passenger Railway...	$49,158.49	$1,677,411.29	$1,628,252.80
Chicago West Div. Railway....	4,869,998.38	5,783,713.65	913,715.27
			Depreciation.
West Chicago Street Railroad.	24,158,908.70	11,585,607.60	12,573,301.10
Total	$29,078,065.57	$19,046,732.54	$10,031,333.03

The cost value of the assets of the two lessor companies are apparently in excess of the book value, according to the last summary, but this is because the first column shows the liabilities of these companies to the West Chicago Street Railroad Co. only, whereas, if the remaining liabilities are considered, the result would be as follows (Exhibit VI, Sec. 9):

	Total liabilities.	Cost value properties.	Deficit.
Chicago Passenger R'way Co..	$3,123,458.49	$1,677,411.29	$1,446,047.20
Chicago West Div. Railway...	10,189,998.38	5,783,713.65	4,406,284.73
West Chicago Street Railroad.	28,358,252.67	11,585,607.60	16,772,645.07
Totals	$41,671,709.54	$19,046,732.54	$22,624,977.00

When the outstanding liabilities are analyzed still further, one finds that in each case the cost of the property is less than the bonds and floating debt, as shown by the following:

	Bonds and Floating debt.	Cost value of property.	Deficit.
Chicago Passenger R'way Co..	$1,783,158.49	$1,677,411.29	$105,747.20
Chicago West Div. Railway...	8,939,998.38	5,783,713.65	3,156,284.73
West Chicago Street Railroad.	15,169,252.67	13,299,321.25[1]	1,869,931.42
Totals	$25,892,409.54	$20,760,446.19	$5,131,963.35

Adding the bonds outstanding, the total deficit would be:

	Total deficit.
Chicago Passenger Railway Co.....	$1,446,047.20
Chicago West Division Railway.....	4,406,284.73
West Chicago Street Railroad.....	15,058,931.42
Total	$20,911,263.35

As a matter of fact, the companies are in a still worse condition than this. The status of the first two companies has been given above. The West Chicago Street Railroad Co. alone remains to be dealt with. According to the above tables, this company has assets, the cost of which was $11,585,607.50. But, as every one knows, the *present* market value of the plant is considerably less than the original cost. The depreciation is certainly not less than $1,500,000 and probably more. In other words, the plant, securities and accounts receivable would perhaps wipe out the bonds

[1]The cost value of property in this table is $1,713,713.65 more than in the preceding tables, which is due to this fact: The cost value of the C. W. D. R. is $5,783,713.65, or $1,713,713.65 more than the bonds outstanding, to pay which the property has been mortgaged. Thus this amount should be transferred to the credit of W. C. S. R. R. Co., whose claim it would be used to liquidate, making its assets $13,299,321.25, instead of $11,585,607.60.

and miscellaneous indebtedness, leaving the stock and the certificates of indebtedness to be reimbursed, if at all, out of the franchise rights, which are far from being ample security in case the franchises should be terminated by the action of the courts, the city council or the legislature.

Chicago Union Traction Co.

Since the date at which Mr. Bard's investigation ends, December 31, 1897, there have been several operations of considerable importance. Another company has been formed and new leases made between it and the North Chicago Street Railroad Co., and the West Chicago Street Railroad Co., thus bringing under one management all the important lines upon the North and West sides of the city. It also controls, through an operating agreement, the Chicago Consolidated Traction Co., which has a large number of suburban lines.

This company was the Chicago Union Traction Co., organized May 24, 1899, and composed of New York, Philadelphia and Chicago capitalists. Its first act was to purchase Mr. Yerkes' holdings in the two companies, amounting to 32,000 shares of stock of the West Chicago Street Railroad Co. out of a total of 131,890, and 20,000 shares of the North Chicago Street Railroad Co. of a total of 79,200 outstanding. It also leased, June 1, 1899, from these two companies all their property and franchises, including the stocks in other companies which they had acquired in 1886, 1887, 1888 and subsequent years. Thus the new company controls the North Chicago City Railway Co., the Chicago Passenger Railway Co. and the Chicago West Division Railway Co., as it owns a majority of the stock, although it does not own a major portion of the stock of the North Chicago Street Railroad Co. and the West Chicago Street Railroad Co.

In return the Chicago Union Traction Co. agreed to assume all the obligations of the lessor companies, to guarantee their bonds, to pay all sums called for by the preceding agreements between the companies, to pay the North Chicago Street Railroad Co. $237,600 each quarter—equivalent to a 12 per cent. annual dividend upon the capital stock of the company—and to pay the West Chicago Street Railroad Co. $197,835 per quarter—equivalent to 6 per cent. a year upon the capital stock—these being the rates of dividends

which the companies were paying at that time. To secure the lessor companies, $10,000,000 in cash or securities were to be deposited with the Illinois Trust and Savings Bank as trustee, and $3,200,000 in stock of the West Chicago Street Railroad Co. and $2,000,000 in stock of the North Chicago Street Railroad Co. have been deposited. The market value of these securities was about $7,200,000 upon July 1, 1901.

The operating agreement with the Chicago Consolidated Traction Co. concerns us little, as the lines operated by this company have not been examined.

The outstanding capital stock of the company is $12,000,000 preferred, 5 per cent. cumulative, and $20,000,000 common. It has issued no bonds, but under the agreement guarantees the bonds of the lessor companies amounting to $25,770,000 for the North Side and West Side companies and $6,750,000 for the Chicago Consolidated Traction Co., total $32,527,000.

The original cost value of the assets July 1, 1900, were:[1]

ASSETS.

Constructon	$116,688
Reconstruction	216,026
Real estate	158,922
Equipment	268,760
Stocks and bonds	382,344
Coupon deposits	143,470
Miscellaneous	538,947
Accounts receivable	257,941
Cash	130,034
	$2,213,132

LIABILITIES.

Capital stock	$32,000,000
Bills and accounts payable	931,954
Employees' deposits	61,588
Coupons	164,170
Accrued liabilities	1,032,637
Miscellaneous	42,816
	$34,233,165

There was in 1900, therefore, a deficit of $32,020,033. That is, by the formation of the new company, $32,000,000 have been added to the capitalization of the street railroad companies above

[1]The last report of the company does not contain a statement of assets and liabilities, so it has been necessary to adopt the statement given in the *Investors' Manual*, which is the company's report for year ending June 30, 1900.

any increase in the physical property. It is true, the company owned stocks in various companies amounting to a par value of $6,805,200, or a market value of $13,493,750. But as these companies do not have assets (exclusive of the franchises) of sufficient value to meet their outstanding obligations, it is quite correct to exclude them from the assets and to say there is a deficit of $32,000,000. In other words, the assets equal the liabilities, excluding the capital stock, leaving as security for the stockholders only the franchises which the company has leased from the other companies. And yet the company paid the lessor companies, as per agreement, and made a profit for its own stockholders of 3 3-4 per cent. during 1899-1900. But after July, 1900, no dividends were paid until July 1, 1901, which seems to indicate that the franchises have been overcapitalized, and that the limit had been reached in the attempt to so water the capital stock and bonds as to bring the rate of profit down to the market rate—5 or 6 per cent. However, the increasing value of the franchises caused by increasing population will doubtless enable the company soon to pay a fair dividend. The overcapitalization of the franchise is only temporary.

Coming now to the question as to what the companies could do if the water were squeezed out of their capitalization and the liabilities were equal to the market value of their properties, we find that the Chicago Union Traction Co. made net earnings during 1900-1901 of $3,031,073, not including dividends on stocks owned or leased, interests on deposits and premiums. Upon a capitalization of $14,800,000—the estimated present market value of the operating plant and equipment—this would yield a dividend of over 20 per cent. annually. The company could pay the city over 25 per cent. of the gross earnings and still declare 8 per cent. dividends annually. Or, it could pay the city over 21 per cent. of gross earnings, lay aside a depreciation fund of 4 per cent. annually and pay 6 per cent. dividends. Or, it could reduce fares to 4 cents, upon the basis of present traffic, lay aside a sinking fund of 4 per cent. annually, and divide profits amounting to 6 per cent. Or, it could sell seven tickets for 25 cents and pay 8 per cent. dividends. In each case the increase in traffic resulting from a lowering of fares would make still further reductions possible.

Conclusion.

Although the financial operations of these seven companies have been outlined but briefly, their results are quite evident.

The franchises given away by State Legislature and City Council were at first only fairly remunerative, but with the growth of the city, the rapidly increasing density of population, they became more and more valuable. The temptation to capitalize them was too strong, and when conversion to cable and electric traction became necessary the opportunity was found by which to accomplish this end. It did not originate then, for by failing to write off capitalization as the plant depreciated, the same result was being attained before. But this method did not water the stock and bonds fast enough. In the eighties and nineties new hands took hold and by shrewd manipulations soon capitalized the franchises for all they were worth. But by 1899 the franchises had again outstripped depreciation, and recourse was had to new leases and a new company.

The final result is that of the present outstanding liabilities, amounting nearly to $118,000,000, at least $72,000,000 is "water," and if one were to wipe out the assets which produce practically no income and are of little value, this amount would approach $90,000,000. Of the total liabilities, $74,200,000 represents capital stock and $43,800,000 bonds and miscellaneous obligations. Thus all of the stock and part of the bonds are "water."

The franchise values for which the companies pay the city nothing amount nearly to $75,000,000—a sum almost equal to the watered capital—which shows how closely the companies have estimated the capital to be issued upon the franchises.

It is not surprising, therefore, to learn that the companies have been paying large dividends, even upon watered capital. For example, the Chicago City Railway Co. has paid upon an average over 42 per cent. annual dividends for the last nineteen years. The North Chicago City Railway Co. has paid 30 per cent. since 1886; the North Chicago Street Railroad Co. nearly 15 per cent. for fourteen years.

Some claim might in justice be made for large dividends in recent years, or an excuse offered for an excess of liabilities over assets, if the roads had been constructed before traffic was sufficient

to pay fair dividends, or if they had met with heavy losses due to no fault of their own. But such has not been the case. The roads have almost always paid fair and recently enormous dividends. One line did lose its property in the fire of 1871, but that was over a generation ago and the profits were so large both before and after the fire that there has been ample opportunity to recoup all losses.

The large profits which the companies are paying show that they can afford to pay the city a generous compensation either in the form of cash payments or lower fares. Further, the fact that the companies are using franchises worth millions and are paying nothing for $75,000,000 in franchises, leads to the conclusion that the companies ought to pay considerable. If the "water" were squeezed out they could pay 20 per cent. of gross income to the city and still declare 6 per cent. dividends, while accumulating a depreciation fund of 4 per cent. annually. Or, fares could be lowered to 4 cents, and 6 per cent. dividends and 4 per cent. depreciation set aside. Such a policy would enable fares to be still further lowered, as the traffic will increase and a depreciation fund of 4 per cent. will keep down fixed charges or increase capital value without increasing outstanding liabilities. Whatever course may be adopted, it is certain that the time has passed when private corporations can expect to use the city's property without paying for it. And property worth $75,000,000 is no longer to be had for the asking. The problem is: What return is fair to the city and to the companies? Neither can afford to be too grasping. The welfare of each depends upon an equitable solution.

ACCOUNTANT'S REPORT.

EXHIBITS I TO VI.

By Edmund F. Bard.

EXHIBIT I.—CHICAGO CITY RAILWAY CO.

Sec. 1.—Financial Operations before Introduction of Cable Traction.

This company was incorporated February 14, 1859, by special act of the Illinois Legislature, and immediately succeeded to certain rights granted to sundry other persons by the city council of Chicago August 16, 1858, for the construction and operation of street railroads in the city of Chicago, work upon which had already commenced November 1, 1858. By April 25, 1859, little over one mile of single track road on State St. from Randolph St. to 12th St. was in operation. Two months later, the road was extended to 22d St., the southern limits of the city at that time.

The rails of this road were spiked to the planks of the corduroy road then existing in State St. The equipment consisted of four cars and 25 horses.

Fourteen years later the mileage had increased to 23 miles single track and the equipment to 75 cars and 600 horses. Seven years later the mileage was 45.679 miles single track and the equipment 292 cars and 1,468 horses.

Of the 45.679 miles of single track road existing January 1, 1881, three miles, on Cottage Grove Ave. from Oakwood Boulevard to 55th St. and thence on 55th St. to Lake Ave., was steam dummy road.

Incidentally it may be said that "the cost per day of feeding each horse was 22.6 cents; grooming, 8.9 cents; for other help, including foremen, nurses, watchmen and watermen, 8.6 cents; of tools, blankets and medicine, .01 cent; of bedding, 4 mills, and of shoeing, 4.2 cents, a total of 46 cents."

In 1881 cable power, as a means of transportation, was introduced, and by January 27, 1882, the first section of 9.033 miles single track cable road built in Chicago was in successful operation. Its effect in reducing the operating expenses of the company was immediate, the cost of operating a car per mile being 11.2 cents, whereas by horse power it was 25.6 cents, and by steam dummy 19.8 cents. The gross receipts per cable car per mile were 23.7 cents, showing the ratio of operating expenses for the new motive power 47.3 per cent.

By May 23, 1883, 17.898 miles single track cable road was in operation, and by November 21, 1887, a total of 33.585 miles single track had been built.

By the end of 1893, 30.261 miles single track road of that character were built, of which 9.114 miles were new extensions of road and the remainder old horse road converted into trolley road. No further work of this description was done till 1895, when steps were taken to convert the remaining horse road of the company into electric road, and by December 31, 1897, only 5.074 miles single track horse road remained.

Prior to December 31, 1880, no actual disbursements had been made on account of the first section of cable road subsequently built on State St. north of 39th St., with possibly the exception of $23,998.36 expended on the building at State and 21st Sts. during 1880, which building subsequently became the power house of the section of cable road referred to.

Up to December 31, 1880, the books of the company show $1,318,062.91 paid out for "Construction;" that is, road-bed, track and street paving. According to this, each mile of single track horse road then existing cost $28,854.89.

There is nothing in the books to show any credit to this account for depreciation, and, considering the many changes that occurred in the roadbed from the inception of the company to the date first referred to, all of which are part of the early history of street transportation in Chicago, there is reason for assuming that the construction account of the company on December 31, 1880, represented not only the first cost of all original road, but all changes and reconstruction thereof thereafter.

There being no special reason for disposing of this question accurately, no examination of the books has been made further back

than 1881, except to show the actual cost of road built during the five years immediately preceding the introduction of the cable system. For example, in 1877-8, a double track road was built on Indiana Ave. between 39th St. and 51st St., and thence on 51st St. east to Grand Boulevard, a distance of 3.375 miles single track, at a cost of $44,026.14, or $13,044.80 per mile of single track. During the same period a line was constructed on Halsted St. from O'Neill St. south to the Union Stock Yards, a distance of 4.028 miles single track, at a cost of $53,488.59, or $13,279.20 per mile of single track.

Prior to the introduction of the cable system, it was the exception rather than the rule to pave the streets between the rails in constructing the road, nor has it ever been the custom of the company to do so in extending its road into outlying territory. As late as November 18, 1888, an official statement of the company shows that 23.14 miles of single track, or 13 per cent. of the present mileage, was paved with "dirt," in other words, not paved at all. On January 1, 1883, only 1½ miles of road on Clark St. and 1 mile on Halsted St., aside from the cable roads on State St. and Wabash and Cottage Grove avenues north of 39th St. were paved with stone.

Such pavement as existed prior to December 31, 1880, consisted of cheap macadam costing about fifty cents per square yard, or $2,346.67 per mile of single track laid. This was the character of pavement laid in 1877-8 in the construction of 1.663 miles single track road on Wentworth avenue from Archer avenue to 29th street, the cost of which section of road, including paving, was $25,531.72, or $15,352.81 per mile single track.

No extensions of road were made in 1879, but the following year the sum of $37,216.43 was expended on Clark St. in paving the street and laying new rails. From all I can learn of the particulars of this expenditure, it seems to have been for granite paving for 2.347 miles single track north of 12th street and new 63-lb. rails for the entire line, indicating that the cost that year per mile single track for granite was $2.13 per square yard, and for 482 tons of 63-lb. rails at $29 per ton, $13,978, or $3,215.55 per mile single track. The first section of road built on the South Side was on State St. from Randolph St. to 12th St., and was opened for traffic in 1859. It consisted of a single track road with turnouts. Instead

of being laid on stringers and cross-ties, the rails were spiked to the planks of the corduroy road then constituting the only paving the street possessed. Subsequently a double track was laid and the street between the rails paved with granite, as far south as 12th St.

This was the condition of the road on December 31, 1880, except that the rails had been extended south to 41st St.

Estimating the cost of granite paving at $9,901.34 per mile single track, the same as on Clark St., and the cost of the remainder of the road-bed, including rails, at $13,044.80 per mile single track, the same as on Indiana avenue, the total cost of a mile of single track horse road would be $22,946.80, including granite paving, which is about $6,500 more than the same road would cost at the present time.

Assuming that the only lines of road possessing no pavement of any character except "dirt" were those already referred to on Halsted St. and Indiana Ave., the following estimate of the cost value of 45.679 miles single track road existing on December 31, 1880, is over rather than under the actual cost, viz.:

Miles Single Track.	Paving.	Total Cost.
11.515	Granite	$264,224.80
26.761	Macadam	410,856.55
7.403	Dirt	97,514.73
45.679	Total	$772,596.08

The difference between this total and the balance already stated as standing to the debit of "Construction" account on December 31, 1880, to wit., $545,466.83, represents depreciation.

The financial condition of the company on the same date was as follows:

ASSETS.

Roadbed		$772,596.08
Real estate		234,423.63
Buildings		202,472.75
Horses, 1,441		151,061.28
Stable property		10,323.85
Stationary engines		11,864.60
Harness		13,307.21
Office furniture and fixtures		4,070.20
Cars—		
92 open, at $725.00	$66,700.00	
64 21-feet, closed, at 836.58	53,541.12	
78 16-feet, closed, at 800.00	62,400.00	
63 14-feet, closed, at 750.00	47,250.00	
Miscellaneous equipments	23,749.02	
		253,640.14

Bills receivable		2,606.00
Cash		3,976.41
Shop and track tools		12,732.59
Storehouse supplies		16,442.42
Total		$1,689,517.16

LIABILITIES.

Capital stock	$1,500,000.00	
Bills payable	105,000.00	
Accounts payable	47,093.67	
Drivers' deposits	16,977.90	
		1,669,071.57
[1]Surplus, December 31, 1880		$20,445.59

Sec. 2.—Cost of First Cable Road.

It does not appear that any attempt has ever been made by any of the companies to charge off the large sum representing depreciation on account of the radical changes from horse road to cable road between 1881 and 1889, and from horse road to electric road between 1892 and 1897, and there is very little statistical information of value for this purpose on file in the accounting departments of the roads, and apparently no effort has been made to compile it.[2]

The absence of data of this character has necessitated a tedious and laborious search of the records covering a business period aggregating 40 years for all the companies examined, for the purpose of ascertaining and preparing the necessary information for this report.

As regards the $545,466.83 chargeable to depreciation on December 31, 1880, already referred to, it is suggested that perhaps a part of it represents an expenditure of some character in connection with buying out or otherwise disposing of the old opposition omnibus lines, the competition from which threatened insolvency to all concerned at one time prior to the introduction of the cable system.

[1]According to the books of the company the surplus was $676,092.43 on the date mentioned, but, as already shown, the difference between the totals represents depreciation, or, strictly speaking, the sum which, if credit to "Construction account," in other words, marked off to depreciation, would correctly represent the cost value of all the property that had ceased to exist or possess any further utility to the company in conducting its business, or for any other purpose.

[2]It is difficult with any degree of certainty to ascribe reason for the omission of the companies in this respect, but there is, of course, the supposition that any adjustment in the accounts that will convert an apparent surplus into a large deficit would be discountenanced by the stockholders as well as the management, and the average accounting officer has not the temerity to make the adjustment on his own responsibility.

As stated at the outset, no particular effort has been made to ascertain accurately the precise nature of the depreciation, since my examination of the records of the Chicago City Railway Company commences practically at January 1, 1881, on which date is recorded the first disbursement on account of the first section of cable road built in Chicago, viz.: that on State St. north of 39th St. Two years later, or in January, 1883, the final entry of cost is made in the books.[1]

In constructing the line on State street, it was necessary to tear up and destroy 8.597 miles horse road then existing, and on Wabash and Cottage Grove avenues and on 22d St. from State St. to Cottage Grove Ave. 8.837 miles of additional single track horse road, making a total of 17.434 miles single track horse road destroyed, the original cost of which is still carried on the books to represent an asset, and thus constitute part of the present surplus of the company.

In addition to the horse road converted into cable road on State street north of 39th street, 500 feet of brand new cable road was built on State street from 300 feet north to 200 feet south of 39th street, 1,350 feet on Wabash avenue from Madison street to Lake street, and 450 feet on Lake street from State street to Wabash avenue, a total of 0.436 miles single track entirely new road, making the total mileage of the first State street cable line 9.033 miles single track.

There was also built 150 feet of single track new cable road on Cottage Grove Ave. south of 39th street, making a total mileage of the Wabash and Cottage Grove Ave. line 8.865 miles single track.

From the records I find the general character of the road described as follows:

---

[1]These dates do not fairly indicate the time consumed in the construction of the road, as may be inferred from the official report of the president of the road to the stockholders at their meeting in January, 1882, wherein it is stated that "work on the State street cable road commenced June 27, 1881, but was delayed by sewerage improvements made by the city till about the middle of August. By the middle of December, 1881, nine miles of single track were constructed."

At the stockholders' meeting the following year, he stated that "cars commenced running January 28, 1882, between 21st St. and Madison St., and a few days after that to 39th St. and also around the eight blocks north of Madison St., commonly known as the loop."

The first payment for labor on account of the Wabash and Cottage Grove Avenue cable lines north of 39th St. was in February, 1882, and the last in May, 1883.

"The track is supported by heavy yokes made of 4x4 T-iron placed four feet apart and the slot is formed by parallel bars of Z-shaped iron iron weighing 600 lbs. to the yard—the whole iron frame-work thoroughly braced and bolted—is surrounded by a heavy and substantial body of concrete, made with the best English Portland cement."

Ex-President Holmes furnishes the following further description:

"The construction consists of an underground tube, through which the cable, supported by grooved pulleys, passes in constant motion, etc. The tube is provided with sewer connections for drainage and an open slot on the top, through which passes a grappling device etc. The metal used for lining the grip performs 2,000 miles of service, when it requires renewal, etc. More power is required during a snowstorm, but in ordinary conditions the operation of 20¼ miles of cable in Chicago has required 477 horse power, of which 389 was used in moving the machinery and cables and 88 to move the 240 cars."

In the construction of the 9.033 miles single track section on State street the following material was used:

Iron	lbs.	8,000,000
Bolts		250,000
Wagon loads of gravel, sand, stone, etc		50,000
Cement { English	bbls.	13,000
Cement { American		12,000
Cords rubble stone		350
Brick		214,000

The cost in detail was:

1,002 tons steel rails, 63 lbs. to yd., at $27.41	$27,465.77
11,015 iron yokes, at $9.14 each	100,669.38
300,000 feet lumber, at $18.53 per M	5,559.38
Castings, hardware, etc	223,697.44
Cement, gravel, sand, rubble, grading, labor, etc	153,941.23
Teaming and freight	7,149.59
Total	$518,482.79

Strictly speaking, this was the total cost of the 9.033 miles single track belonging tothe State street line. The total cost of the 8.865 miles single track line on Wabash avenue and Cottage Grove avenue was $696,857.46. The cost per mile on State street was $57,398.74, and on Wabash and Cottage Grove avenues $78,856.79, an increase of 33.49 per cent.

The details of the cost of the latter line were not scrutinized as closely as those for the State St. line, but apparently the per cent. of increase was practically uniform in all particulars. This may be inferred from the following comparison of material used in the construction:

Material.	State St. 9.033 miles.	State St. Per mile.	Wabash Ave. 8.865 miles.	Wabash Ave. Per mile.
Iron .....lbs.	8,000,000	885,000	9,000,000	1,016,000
Bolts	250,000	29,000	275,000	31,000
Wagon loads of gravel, etc.....	50,000	5,500	60,000	7,000
English cement	13,000	1,400	15,000	1,700
American cement	12,000	1,300	2,000	230
Cords rubble	350	40	550	62
Brick	214,000	23,700	230,000	26,000

The cost of granite paving, which is not included in the above total, was for the State street line, 42,395 square yards at $2.51, $106,402.91; Wabash and Cottage Grove avenues, 41,475 square yards at $3.59 per square yard, $149,125.11, an increase of 43 per cent.

Adding the cost of street paving to the previous totals, we have the following:

Sections.	Total cost.	Cost per mile.
State Street	$624,885.70	$69,178.09
Wabash and Cottage Grove Ave.....	845,982.57	95,731.98
17.898 miles single track.....$1,470,868.27		$82,180.60

Only one power house, with its necessary appurtenances and machinery, was constructed to operate the two sections of cable road described, the cost of which was as follows:

21st St. power house, engine foundations and smokestack.....	$52,214.35
Engines and boilers, 4 automatic cut-off engines of 250 h. p. each, 4 steam boilers aggregating 1,000 h. p.....	55,153.03
Cable machinery	38,633.27
Total	$146,000.65
To this should be added expenditures on the power house building in 1880.	23,998.36
Total cost of power plant.....	$169,999.01

This does not include the cost of land on which the power house stands.

The total cost of the entire system was $1,640,867.28, or at the rate of $91,678.81 per mile of single track.

The total cost, according to the books, of the State street roadbed and conduit was $910,034.41, instead of $624,885.70, as stated above, an excess og $285,148.71; and the cost of the other roadbed and conduit $858,634.24, instead of $845,982.57, as stated above, an excess of $12,651.67. This is due to the following items, which I find included in the cost on the books:

Printing, stationery, telegrams and expenses of that character		$2,484.98
Patents		16,333.00
Legal expenses		2,894.05
License fees		3,000.00
Interest on bonds		3,735.57
Cable (only part of the cost)		7,022.76
C. B. Holmes, State St. line	$249,678.35	
Wabash Ave. line	12,651.67	
		262,330.02
Total		$297,800.38

None of these disbursements have any immediate connection with the cost of the roadbed proper, although legitimate charges to "Construction" account, with possibly the exception of the sum paid or charged to C. B. Holmes, about which nothing seems to be known, as the details are not on record.

It appears that the building of the first section of cable road "was accomplished in the face of opposition and uncertainty which would have staggered men of less energy and pluck," and that "a large and powerful element among the citizens of Chicago was openly opposed to the change. Some of the newspapers ridiculed and attacked the company in every way possible."

This is the testimony of Mr. Holmes himself, and it suggests at once that possibly some of the money charged to his account above may have gone to quiet this opposition in a measure. Such expenses are not always inseparable from street railroad construction, especially new extensions; in fact, this report shows large payments of this nature by all the companies examined, and for changes of a less radical character than the one mentioned above. It would therefore be remarkable if no such expense was incurred in connection with the introduction of the first cable road into Chicago, and as there is no other item or division of the total expense into which such disbursements could be covered except the $262,330.02 above referred to, it is not improbable that they are there. There is nothing, however, on record either to prove or disprove it.

There were other unusual expenses, but of a different character, incurred in the construction of the first sections of cable road on State street, which were not repeated in subsequent extensions of the system, all of which, allowing for difference in structure, would seem to show that a fair estimate of the cost of such sections of cable road as were subsequently built on the North and West Side

roads, the actual cost of which is not shown by the books of the companies, can not greatly exceed the cost of the first two sections of road built on the South Side.[1]

Sec. 3.—Cost of Cable Roads Compared.

All of these circumstances, together with the fact that the construction of the section of cable road referred to was essentially experimental, necessarily involved exceptional expenditures not duplicated in sections of cable road subsequently built, the cost of which, compared with that of the first section, brings out clearly the excessive cost of the first two sections built on the South Side.

On the other hand, in using this cost as a basis for estimating the cost of the first sections of cable road built on the North and West Sides, allowance must be made for any differences in physical structure of the roads. In lieu of the construction accounts, access to which, as elsewhere explained in this report, has been denied me, I have made diligent efforts to obtain copies of the specifications under which all of the different roads were built, for the purpose of comparison, but without success.

The brief description of the South Side cable system already given, together with the actual cost, as shown by the books of the Chicago City Railway Company, will afford an approximate basis for estimating the cost of the North and West Side systems; at least, the difference in cost may be approximated by comparing the above mentioned description with that given of the North and West Side systems in the semi-official publication entitled "A History of the Yerkes System of Street Railways in the City of Chicago," to-wit:

"San Francisco was the first city to make a successful trial of this plan of transportation. Chicago was next to adopt the cable for her South Side railway.

[1]For example complaints are uniformly made in the case of each company of encountering beds of quicksand and the pipes of the water, gas and sewer systems, and that in some instances these systems had to be entirely rebuilt at the expense of the companies. In addition, on the South Side the claim is especially made that "for a mile and a half south of 12th street, on State street, an average fill of three feet was necessary and the balance of the way from one to two feet of excavation was necessary to secure the proper grade."

In the annual report to the stockholders in January, 1882, it is stated that "as nearly as can be computed, there has been expended on the street and in machinery, foundations and buildings fully $150,000 for the benefit of other lines, that is, the sum might have been saved had the company no expectation of ever operating any other lines than State street." The difficulty of obtaining granite blocks is also referred to as follows: "To get sufficient paving blocks it was necessary to purchase from two quarries in Wisconsin, one in Maine, three in Massachusetts, one in Maryland, one in Virginia and three in New York."

Then came Philadelphia. When the North Chicago system was under consideration by Philadelphia capitalists, it was natural that they should pattern rather closely after the most approved methods of cable railway construction in existence. In general it may be said that the North and West Chicago cable railway is the Philadelphia system with improvements added. The Philadelphia conduit consists of a tube of sheet iron 1-8 inch thick and 4 feet 5½ inches in length, bent into a particular shape. The tube is supported by, and bolted to, iron yokes placed 4 feet 6 inches apart between centers. The yokes rest on beds of concrete about 6 inches deep, and there is a concrete filling around the tubes between the yokes. To the yokes are bolted the slots and rails which are of steel and peculiar cross section. The slot is bolted to the shoulder of the yoke. Each rail and slot is 31 feet in length. At every 31 feet 6 inches there is a single manhole, one side of which is similar to one-half of a yoke, the other side being of special design. Within the manhole, 5 inches below the conduit proper, and on each side of the manhole, there is a projecting shelf upon which are bolted two channel bars. These channel bars are placed on one flange with the flange extending away from the center line of the conduit, and run parallel to this line. Upon these are bolted the pulley and its attachments, over which runs the cable. At every square there is a double manhole or 'grip hatch,' so called, which extends on both sides of the conduit proper, and is essentially a single manhole on each side of the center line of the conduit. These manholes lie between the track and the slot. The ends of the manholes take the places of two yokes, supporting the tubes. To these yokes are bolted the sides and bottom—sheet-iron plates—thus forming a hollow square enclosure. Each hole is furnished with a lifting door large enough to allow the passage of one man.

"Running the entire length of the line, and below the conduit, is a nine-inch terra cotta pipe for drainage. This pipe connects with the sewer at the foot of the grades."

The most noticeable difference between the two systems, as shown by the respective descriptions, is that the concrete conduit of the North and West Chicago roads is lined with sheet iron ⅛ inch thick, whereas this lining is entirely absent from the concrete conduit of the South Side road, in the construction of which a wooden frame was used about which the concrete was packed and the frame afterward withdrawn, while the iron lining in the former case was intended not only to be a fixture, but at the same time to serve the purpose of a frame or mold about which to pack the cement.

Another noticeable difference is the absence of any wood or lumber in structure of the North and West Chicago roads, whereas 300,000 feet of lumber was used in the construction of the 9.033 miles single track road constituting the first section of cable road built on the South Side. All of this wood was removed, however, in 1887, having been used for stringers under the rails.

At the same time, new steel rails, weighing 70 pounds to the yard, were laid, the entire cost of reconstruction being $53,642.65,

of which sum $34,378.62 represented the cost of taking up and relaying the track and $19,264.03, or 45.44 cents per square yard, the cost of relaying the granite pavement.

By this change in the structure of the South Side road the physical characters of the two cable systems are brought closer together and afford a better basis for estimating the unknown cost of one by comparison with the known cost of the other.

Sec. 4.—Construction Expenses in Detail.

The cost of the cables used in operating the first two sections of 17.893 miles single track road on the South Side was $27,779.44, or at the rate of 26 cents per foot.[1]

For the first two sections of cable road built on the South Side there were constructed 102 grip-cars at a cost of $102,845.55, or an average of $1,008.29 each, fifty of which were for use on the Wabash and Cottage Grove avenue line and the remainder on the State street line.[2] The same number of grips were also made at a total cost of $12,465.22, or $122.21 each, and for use on the two roads in the same proportion.

There was apparently no increase in the number of passenger cars during 1881; at least, no increase was occasioned by the opening of the cable line on State street in January of the following year, but by the end of 1882 "fifty new large and handsome passenger cars, at a cost of $73,771.00, or $1,475.42 each," were added to the rolling stock of the company.

On May 21, 1887, an extension of the cable road on State street, from 39th street to 63d street, was completed and in operation, and on November 21, 1887, an extension of the cable road on Cottage Grove avenue, from 39th street to 67th street, and on 55th street from Cottage Grove avenue to Lake avenue, including a loop at Jackson Park, was also completed and in operation.

The construction of the State street extension involved the tearing up and destruction of 0.256 mile single track horse road built prior to December 31, 1880, and 5.744 miles single track new horse

[1] These were Swedes steel cables, the tensile strength of which is 78,000 lbs., as against 54,000 lbs., for iron cable at 23 cents. per foot.

[2] The cost of the grip-cars differed materially, the first one built costing $777.16, the second, $973; the next forty, $687.15, and the remainder at a figure which brought the average of the entire lot up to $1,008.29, as before stated.

road built subsequent to that date and contemporaneous with the introduction of the first section of cable road on State street, making a total of six miles single track new cable road built at the cost of $330,040.82, including granite paving, or at the rate of $55,006.80 per mile single track.

The extension on Cottage Grove avenue and 55th street necessitated the tearing up of 3.125 miles single track horse road built prior to December 31, 1880, and 0.126 mile single track horse road built subsequent to that date. It also involved the construction of three miles single track, entire new track, or the conversion of the single track line on Cottage Grove avenue from 39th street to 55th street, from Cottage Grove avenue to Lake avenue, into a double track road, and three miles single track entirely new road on Cottage Grove avenue south of 55th street to 67th street, and 0.436 mile single track entirely new road for the loop at Jackson Park, making altogether 9.687 miles single track new cable road extension, at a cost of $575,408.63, including granite paving, or at the rate of $59,400.09 per mile single track.

Partly in anticipation of the opening of the extension on State street, and partly owing to the growing traffic on the line north of 39th street, it became necessary to install two new 500 horse power engines and two new 500 horse power boilers at the power house at 21st street and State street, and to transfer the four original smaller ones for the use of the extension south of 39th street. The cost of installing the new engines was $44,139.17 and boilers $20,292.44. There was also expended on the 21st street power house $11,488.56. Subsequently two more 500 horse power engines were installed at the 21st street power house at an additional cost of $11,000. By these changes the 17.898 miles of road north of 39th street were operated by four engines, aggregating 2,000 horse power, or 111 horse power per mile, and the six miles of road south of 39th street by four engines, aggregating 1,000 horse power, or 167 horse power per mile.

The entire cost of the six miles single track extension south of 39th street was $494,210, including power house, engines, boilers, cable machinery, granite paving, etc., or at the rate of $82,368.33 per mile single track, and the corresponding cost of the Hyde Park extension (9.687 miles single track) was $842,038.11, or at the rate

of $86,924.54 per mile single track. For this section of road a power house with all necessary machinery was erected on Cottage Grove avenue and 55th street, including three 500 horse power boilers and two engines of 1,000 horse power capacity each.

During 1890 the cable line on Cottage Grove avenue was still further extended south from 67th street to 211 feet south of 71st street, an additional 1.08 miles single track to the system at a cost of $64,152.10, and the same year additional engines were installed in the 55th street power house at an expense of $26,500. New improvements were also made to the cable machinery at the 21st street power house, at a cost of about $40,226.80.

In 1892 the new downtown loop was built for the Wabash avenue line, which had heretofore been using the same loop as the State street line. The new loop was built on Wabash and Michigan avenues, from Madison to Randolph streets, and on Madison and Randolph streets from Wabash avenue to Michigan avenue, thus adding 0.501 mile single track to the Wabash avenue cable line. The cost of this loop was $58,465.97.

In the construction of that part from Randolph street to Madison street on Wabash avenue, it became necessary to move the existing cable track between these points, then forming part of the joint loop on State, Lake and Madison streets and Wabash avenue, from the center of Wabash avenue to the west side of the center line, in order to make room for the new track, thus increasing the amount of road to be built to 0.667 mile single track, so that the rate of cost per mile was $87,655.02.

No new granite blocks were required for the paving, the old granite paving being relaid. From the best information I can obtain, the average cost of labor per square yard for laying granite block is $0.46, and as there were 3,131 square yards of paving done, the cost, if deducted from the total $58,465.97, would leave $57,025.71 to represent the total cost of the section of cable road referred to, or at the rate of $85,495.82 per mile of single track.

As the cost of the last section of cable road built two years previous was $59,400.09 per mile single track, exclusive of paving, the increase in cost for the loop was at the rate of $26,095.73, or 43.93 per cent. per mile single track.

This increased cost for road of precisely the same physical character as that previously built was undoubtedly due to greater obstructions encountered in the streets in the business district than were met with in streets more remote.[1]

Reference has been made to the fact that in 1887 all the wood originally contained in the section of cable road on State street north of 39th street was entirely removed, and at the same time new 70-pound steel rails laid, at a total cost of $53,642.65. The same improvement was made in the 8.865 miles single track road on Wabash and Cottage Grove avenues north of 39th street, the same year, at a total cost of $53,701.80, of which sum $35,852.16 represented the taking up and relaying of the track, etc., and $17,849.64, or 42.90 cents per square yard, the cost of relaying the old granite pavement.

Including all the improvements enumerated, the 35.166 miles single track cable road cost in the aggregate $2,606,280.24, or an average of $74,113.64 per mile single track, and the aggregate cost of the power plants, including power houses, engines, boilers, cable machinery, etc., $754,444.64, or a grand total of $3,360,724.88, or $95,570.30 for the completely equipped and operative system, exclusive of rolling stock and cable.

Sec. 5.—Cost of Trolley Lines.

Between December 31, 1880, and December 31, 1892, 104.545 miles single track horse railroad was built, of which 5.870 miles single track was converted into cable road as already stated. Of the remainder, there still exists 4.818 miles single track, 2.752 miles single track have been transferred or leased to other companies, 1.003 miles single track have been torn up and abandoned, and 90.102 miles single track have been converted into trolley road.

[1] Elsewhere in this report it will be found that in the construction of the State street loop extension of the West Chicago Street Railroad, built about the same time as the Michigan avenue loop, almost the same ratio of increase occurs in the cost over that of the Blue Island Avenue, Halsted and Van Buren Street line. For example, the cost of the latter line per mile was $96,455.43 and of the State street loop extension, $139,221.37 per mile, both single track, showing an increase of 44.34 per cent., or a slight difference in the rate of increase in the Michigan avenue loop and other South Side cable roads.

There is reason to believe that the obstructions encountered were not so great in the case of the Michigan avenue loop as in the case of the West Chicago loop, the district covered being less of a business center. In any event, the comparison is valuable in that it seems to indicate clearly that whatever structural differences there may be in the two systems of roadbed, the extreme difference in cost does not average more than $40,000 per mile, single track.

The introduction of electric power occurred in 1892. During that and the following year 30.261 miles single track electric road was built, at an expenditure of $519,392.15, or an average of $17,185.17 per mile. This average, however, is not a safe basis for estimating the cost of a mile of trolley road, as may be inferred from the following detailed schedule of the different sections of road built and the actual cost thereof, viz.:

	Miles, S. T.	Total Cost.	Cost p. Mile.
On 47th Street, from—			
Kedzie Ave. to Leavitt St.	2.5	$30,755.72	$12,302.29
Leavitt St. to Paulina St.	1.25	27,111.20	21,688.96
Paulina St. to Ashland Ave.	0.25	4,248.91	16,995.64
State St. to Cottage Grove Ave.	2.	41,404.60	20,702.30
Cottage Grove Ave. to Drexel Boulevard.	0.302	6,356.38	21,047.62
Drexel Boulevard to Lake Ave.	1.248	19,298.59	15,463.61
Ashland Ave. to Halsted St.	2.	22,631.27	11,315.64
Halsted St. to State St.	2.	24,604.61	12,302.31
On 63d Street, from—			
Ashland Ave. to Center Ave.	1.	19,401.19	19,401.19
Center Ave. to Wentworth Ave. / Cottage Grove Ave. to Ill. Cent. R. R.	3.936	83,752.22	21,278.52
Grace, 62d, 64th and Stony Island loop.	0.709	7,731.79	10,905.20
Illinois Central R. R. to Stony Island Ave.	0.564	12,010.09	21,294.50
Kedzie Ave. to Central Park Ave.	1.	11,891.86	11,891.86
On 61st Street, from—			
State St. to Wabash Ave.	0.15	2,487.78	16,585.20
Wabash Ave. to South Park Court / South Park Court to 60th St.	3.674	53,967.59	14,689.06
Wentworth Ave. to State St.	0.5	10,811.93	21,623.86
On 35th Street, from—			
State St. to Ullman St.	3.178	67,287.22	21,162.30
Ullman St. to California Ave.	4.	65,841.96	16,460.49
Subsequently this line was extended from—			
State St. to Michigan Ave.	0.163	3,449.45	21,162.30

Connection was also made between 61st and 63d streets on Cottage Grove avenue and on State street from 61st to 61st street viaduct, and on Wentworth from 61st street viaduct to 63d street, a distance of one mile, single track, at a cost of $7,797.24, making a total cost, including the extension on 35th street, of $522,841.60, and an average per mile of $17,585.17.

No extensions of this character of road were made in 1894, but during the following three years a total of 111.93 miles single track trolley road were built at an expenditure of $2,335,341.44, or an average of $20,953.64 per mile of single track.

As before stated, this average is misleading, as the same variation in cost of different sections of road composing the 111.93 miles occur as in the foregoing schedule. This variation is not due to any economy in construction of roads built under the same specifi-

cations, but to difference in the character of pavement, weight of rails laid, in some cases to the absence of any pavement at all and in others to the relaying of the old pavement, the first cost of which had already gone into construction account. Furthermore, the first trolley poles erected were wooden, whereas those subsequently erected were made of iron, which improvement with others in the overhead system increased the cost of overhead construction materially, as will be seen by the following scredule, viz.:

Line.	Miles, S. T.	Overhead Cost.	Cost p. Mile.
47th St.	11.55	$20,600.57	$1,783.60
61-63d Sts.	12.533	38,638.56	3,082.95
35th St.	7.341	32,714.24	4,456.38
29th St.	.170	684.30	4,025.30
Total	111.76	$616,175.66	$5,515.40

The variation in cost of the underground work was naturally not so marked, although improvements occurred in that department, as will be seen by the following schedule of the cost, viz.:

Line.	Miles, S. T.	Overhead Cost.	Cost p. Mile.
47th St.	11.55	$15,414.42	$1,346.00
61-63d Sts.	12.533	20,082.66	1,002.40
35th St.	7.341	8,178.56	1,114.09
29th St.	.170	171.08	1,006.40
Total	111.76	$198,905.68	$1,779.71

The cost of the rails laid on portions of the road was double that for other portions. The following schedule shows the weight per yard of the rails laid, the mileage and the cost, viz.:

Weight per yd.	Miles, S. T.	Total Cost.	Cost p. Mile.
45 lbs.	1.5	$3,329.97	$2,219.98
63 lbs.	45.407	141,123.59	3,107.97
70 lbs.	.302	1,042.90	3,453.30
72 lbs.	2.5	8,879.85	3,551.94
83 lbs.	74.978	306,937.40	4,094.62
90 lbs.	17.667	78,440.60	4,439.95
Total	142.354	$539,754.31	

The cost per ton taken is uniformly $28.03, the cost of the most recent purchases. If the exact cost of the different quantities of the same weight purchased at different periods were taken no satisfactory comparison could be made of the total cost of different sections built at different periods. For the same reason the following schedule of the cost of the street paving is based uniformly upon the average cost per square yard of the different kinds of pavement, to-wit: Granite, $2; cedar block, $1; macadam, 60 cents, and vitrified brick, $1.60.

Pavement.	Miles, S. T.	Total Cost.	Cost p. Mile.
Granite	78.985	$740,710.38	$9,986.66
Wood	28.326	132,945.27	4,693.33
Macadam	11.163	31,435.01	2,816.00
Brick	8.5	63,829.31	7,509.33
Dirt	15.38	.....	
Total	142.354	$968,919.97	

The cost of the miscellaneous material and labor entering into the total cost of the roadbed was as follows:

Line.	Miles, S. T.	Total Cost.	Cost p. Mile.
47th St.	11.55	$58,783.55	$5,089.80
61-63d Sts.	11.533	39,001.54	3,382.60
35th St.	7.341	15,493.06	2,110.50
29th St.	0.170	105.60	621.18
Miscellaneous	111.76	568,801.41	5,089.50
Total	142,354	$682,185.16	

As already stated, certain sections of the road converted from horse to electric road were already paved with granite block, which did not warrant the laying of new pavement. This pavement was therefore relaid when the change was made, and thus its first cost necessarily became incorporated into the cost value of the new road. The original cost was $284,242.13, which, if added to the actual expenditures between 1892 and 1897 inclusive, to-wit: $2,858,183.04, make the total cost value of the 142.354 miles single track electric road $3,142,425.17, divided as follows:

Line.	Miles, S. T.	Total Cost.	Avg. p. Mile.
47th St.	11.55	$213,957.94	$18,524.50
61-63d Sts.	11.533	209,851.69	11,195.76
35th St.	7.341	136,578.63	18,604.91
29th St.	0.170	3,252.80	19,134.12
Miscellaneous	111.76	2,578,784.11	23,074.30
Total	142.354	$3,142,425.17	

The total cost of the electric portion of the road was as follows:

Line.	Miles, S. T.		
47th St.	11.55	$36,014.99	$3,118.18
61-63d Sts.	12.533[1]	58,721.22	4,685.33
35th St.	7.341	40,892.80	5,570.47
29th St.	0.170	855.38	5,031.65
Miscellaneous	111.76	815,081.34	7,293.14
Total	143.354	$951,565.73	

[1]It will be noticed that the mileage on 61-63d Sts. in the last schedule is one mile greater than in the previous ones. This is on account of the fact that the trolley wires on Cottage Grove avenue from 61st to 63d street are built over the cable track, the cost of which is included in the cable system. The case is the same on State street from 61st street to 61st street viaduct. The roadbed on Wentworth avenue from the 61st street viaduct to 63d street is also included in the general cost of the entire road on Wentworth avenue.

Independent of the electric portion of the road, the actual cost of the roadbed was as follows:

Line.	Miles, S. T.	Total Cost.	Avg. p. Mile.
47th St.	11.55	$177,942.95	$15,406.32
61-63d Sts.	11.533	151,130.47	13,105.05
35th St.	7.341	95,685.83	13,034.44
29th St.	0.170	2,397.42	14,102.47
Miscellaneous	111.76	1,763,702.77	15,781.17
Total	142,354	$2,190,859.44	

The total cost of the roadbed is subdivided as follows:

Miles, S. T.	Material and Labor.	Total Cost.	Av. p. Mile.
142.354	Steel rails	$539,754.31	$3,791.64
142.354	Pavement	968,919.97	6,806.40
142.354	Miscellaneous matter and labor	682,185.16	4,792.20
Total		$2,190,859.44	

The total cost of the electric portion is subdivided as follows:

Miles, S. T.	What for.	Total Cost.	Avg. p. Mile.
143.354	Overhead	$708,813.33	$4,944.50
143.354	Underground	242,752.40	1,693.40
Total		$951,565.73	

Referring to the first schedule, it will be noticed that the sections of road on 47th street from Leavitt to Paulina; on 63d street from Cottage Grove avenue to Stony Island avenue and from Wentworth avenue to Center avenue and on 35th street from State street to Ullman street, an aggregate of 8.928 miles out of the total 30.261 miles single track electric road built in 1892-93, cost about the same per mile to build. Each of these sections was built after the same specifications. Each is paved with granite block and each of the rails weigh 83 pounds to the yard. The other items of cost likewise correspond. As nearly 56 per cent. of the total electric mileage is composed of road of this character, its actual cost would seem to afford a better basis for computations than the general average of roads of irregular description.

The sections referred to cost $21,298.36 per mile single track, divided as follows:

Paving	$9,386.66
Rails	4,094.62
Miscellaneous material and labor	3,036.09
Total cost for roadbed	$16,517.37
Electric construction	4,780.99
Total	$21,298.36

The items of paving and electrical construction include the cost of labor. The labor of laying the rails is included in the items of miscellaneous material and labor.

During 1895-6-7 thirty-four and a half miles single track road of precisely similar description was built, at an average cost, however, of $25,863.89 per mile, divided as follows:

Paving	$9,386.66
Rails	4,094.62
Miscellaneous material and labor	5,089.50
Total for roadbed	$18,570.78
Electrical construction	7,293.11
Total	$25,863.89

The engineers of the company estimate that the same road can be built to-day for $18,077.85 per mile single track, divided as follows:

Paving	$9,386.66
Rails	4,094.62
Miscellaneous material and labor	2,680.21
Total for roadbed	$16,161.49
Overhead material	1,270.41
Overhead labor	170.34
Underground material	370.80
Underground labor	104.81
Total	$18,077.85

Sec. 6.—Present Assets and Liabilities.

The cost value of the existing cable, electric and horse railroad of the company on December 31, 1897, is as follows:

35.166 miles S. T. cable road at $74,113.64	$2,606,280.24
142.354 miles S. T. electric road at $22,074.72	3,142,425.17
.256 miles S. T. horse road at $22,946.14	5,873.31
2.818 miles S. T. horse road at $24,995.73	70,427.96
2. miles S. T. horse road at $14,720.08	29,440.16
182.594 miles	$5,854,446.84
To this should be added the cost value of road leased to other companies	170,000.00
Also amount paid to the Ill. Cent. R. R. Co. for proportionate cost of raising tracks and building subway at 63d St. and Ill. Cent. R. R. right of way	60,590.92
Total	$6,085,037.76

Deducting this total from the balance carried on the books of the company to the debit of construction account, shows a depreciation of $4,811,565.05 carried in that account properly chargeable to profit and loss.

The real estate or land owned by the company on December 31, 1880, just before the introduction of the cable system, cost $234,423.63.

Between that date and December 31, 1885, during which period the first two sections of cable road north of 39th street were built, and just before the extension of those lines south of 39th street, there was expended for land $40,500.10, and between December 31, 1885, and December 31, 1892, or the year prior to the operation of the lines, there was expended $160,387.67 for additional land, part for the enlargement of car barns, shops, etc., due to the increased traffic arising from the extension of the cable lines and partly for land upon which to erect two new cable power houses for the new extensions.

Between December 31, 1892, and December 31, 1897, $49,584.39 was paid out for additional land, principally for a site for the new electric power houses at Oakley avenue and Leavitt street, between 48th and 49th streets, and on State street and 52d street.

The buildings owned by the company on December 31, 1880, cost $202,472.75. Directly and indirectly the construction of the first two sections of cable road north of 39th street occasioned a further expenditure of $167,568.83 for improvements of this character. Between December 31, 1885, and December 31, 1892, $761,531.33 was paid out for extensive improvements in the buildings of the company generally and particularly for the erection of two new cable power houses for the extensions south of 39th street.

The introduction of the trolley system in 1893 necessitated the construction of the two new electric power houses already referred to at a joint cost of $241,356.09, exclusive of machinery. Miscellaneous improvements costing $135,537.71 were also made in other buildings prior to December 31, 1897.

The cable machinery for the first two sections of road north of 39th street cost $137,925.47 up to December 31, 1885, and together with the extensions south of 39th street $460,984.32 additional by December 31, 1892, making a total of $598,909.79 for cable machinery. For the five years succeeding December 31, 1892, $23,394.11 in improvements were made to the machinery.

The total cost of electrical machinery up to December 31, 1897, was $586,549.31.

The two electric power houses, including machinery, but excluding land, cost $827,905.40, divided as follows: Oakley avenue, $392,462.99; 52d street and State street, $435,442.41.

The total cost value of all the property of the company on December 31, 1897, is shown by the following statement:

ASSETS.

Cable road	$2,606,280.24	
Electric road	3,142,425.17	
Horse road	105,741.43	
Leased road	170,000.00	
Ill. Cent. R. R. construction	60,590.92	
		$6,085,037.76
Real Estate—Land	$484,895.79	
Buildings	1,508,466.71	
		1,993,362.50
Machinery—Cable	$622,303.90	
Electric	586,549.31	
		1,208,853.21
Cable		38,744.46
Tools, etc.		33,126.00
Office furniture and fixtures		9,247.01
Storehouse supplies		110,929.99
Uniforms		570.00
Auditorium stock (estimated value)		2,500.00
Chicago Exhibition Co. bonds		10,000.00
Accounts receivable		16,268.20
Rolling Stock:		
339 Box Cars, at $900	$305,100.00	
59 Box Cars, at $725	42,775.00	
6 Box Cars, at $650	3,900.00	
417 Open Cars, at $725	302,325.00	
259 Grip Cars, at $650	168,350.00	
390 Box Cars, motors, at $1,000	390,000	
340 Open Cars, motors, at $825	280,500.00	
2 Mail Cars, at $900	1,800.00	
2 Sweepers, at $750	1,500.00	
6 Sweepers, at $500	3,000.00	
5 Sweepers, at $300	1,500.00	
1 Sweeper, at $400	400.00	
61 Snow plows	20,781.60	
		$1,521,931.60
Grips		25,031.84
Horses		8,270.00
Cash on hand and in bank		540,088.14
Total assets		$11,603,960.71

LIABILITIES.

Capital stock	$12,000,000.00
Bonds	4,619,500.00
Unpaid coupons	9,580.50
Unpaid wages	72,402.15

Unpaid bills (audited)	73,599.42	
Deposits	11,855.00	
Accounts payable	65,051.15	
		$16,851,988.22
Deficit		$5,248,027.51

Sec. 7.—Stocks, Bonds and Dividends.

The authorized capital stock of this company outstanding January 1, 1881, was $1,500,000, and for several years prior to that date it had remained at the same figure. With the advent of the cable system, accompanied by a large increase in traffic and net earnings, came a series of enlargements of capital in the form of both stock and bonds.

The first issue of bonds, in reality certificates of indebtedness, occurred in 1881, simultaneously with the construction section of cable road built on State street. The amount of this issue was $750,000, of which $738,600 were sold the same year and the balance in subsequent years.

On July 1, 1882, the capital stock was increased to $2,500,000, and on December 1 the same year the bonds authorized were also increased to $1,500,000. Reference is made, in the annual report to the stockholders, to the new issue of bonds as follows: "Five hundred thousand dollars of these bonds were issued to the stockholders at par and the money used in paying a dividend of 20 per cent to the stockholders." In other words, the bonds themselves were practically given to the stockholders, the transaction being essentially a "bond" dividend as distinguished from the common "stock" dividend. The 20 per cent. bond dividend was also on the full $2,500,000 capital stock. Considering that the new investment of $1,000,000 had only been in six months the return was at the rate of 50 per cent. per annum.

Prior to the increase in the stock, two quarterly dividends of 2½ per cent. each had been paid that year and two more of the same rate were subsequently paid on the increased sum.

But this did not constitute the only profit derived by the investor. As the new stock was sold only to the old stockholders at par and had a market value of $300 immediately after its issue, the conditions under which it was sold amounted to the payment of a bonus of 200 per cent., or an extra dividend of 133 1-3 per cent on the original $1,500,000 of capital.

As regards the bond dividend, nothing in the financial condition of the company at the time, or in its previous history as regards dividends and earnings, warranted the payment of so large a dividend. For five years previous to 1881 the dividend rate had been uniformly 10 per cent. and for 1881 it was only 1 per cent. higher. Furthermore, the net earnings for 1882 were $364,992.32. Deducting the regular quarterly dividends of 1882, aggregating $190,747.50, leaves only $174,244.82 applicable to the $500,000 extra dividend, showing that the balance was apparently from the accumulation of previous years. But it has already been pointed out that the surplus account, according to the books, on December 31, 1880, was $655,646.84 in excess of what it should be, and if to this is added $355,098.08, the cost value of the 17.434 miles of old horse railroad just replaced by cable road, the total sum charged to depreciation would be $1,010,744.92, which would wipe out the $816,897.85 book surplus of December 31, 1881, and $193,847.07 of the $364,992.32 surplus earnings for 1882.

The correct surplus remaining after this adjustment of the accounts would have been sufficient to pay an average dividend of nearly 9 per cent. for the year, so that if the proper sum chargeable to depreciation had been marked off even as late as December 31, 1882, it would have had no material effect on the rate of dividends that had been uniformly paid each year, and which apparently gave the stock a market value of $300 per share before any series of bonus distributions had been introduced.

Reference has been made on a preceding page to the fact that the management had to overcome serious opposition on the part of the general public to the introduction of the cable system, and it suggests at once the possibility of its being obliged to overcome greater opposition among those more directly interested by the distribution of the extra 20 per cent. dividend of $500,000, and as the current earnings did not warrant it a bond issued was decided upon for the purpose.

On April 10, 1883, the capital stock was again increased $500,000, or to a total of $3,000,000. As in the case of the previous issue, the new stock was sold to the old stockholders only, and at par, although the market value of the general stock was $300 per share before the increase and $270 afterward. The bonus in this

case was 170 per cent. on the par value of the new stock, equivalent to an extra dividend of 34 per cent. to the old stockholders on their holdings prior to the increase.

The regular quarterly dividends this year aggregated 11 per cent., and from that time down to the present have been 12 per cent. per annum.

In 1885 another issue of bonds, amounting to $1,000,000, was authorized. These bonds, like those issued previously, mature July 1, 1901, and bear 4½ per cent. interest.

In the annual report to the stockholders at the meeting in January, 1886, reference is made to the new stock and bonds issued since 1880, as follows:

"Five years ago the capital stock of the company consisted of $1,500,000.00 and was selling at something over $300 per share. Since that time the company has grappled with and carried through the most gigantic enterprise ever undertaken by any street railway corporation in the world. It has issued and sold an additional million and a half stock at par and two and a half millions of bonds, the proceeds of which have been expended in a radical revolution of its system." * * *

During the same year $1,500,000 new bonds were authorized and sold to provide funds to extend the cable roads south of 39th street, making total bonds outstanding $4,000,000 and capital stock $3,000,000. This year it was decided that the bonds should have something more substantial than the mere promise of the company to pay as security, and accordingly a mortgage or first lien on all the property of the company was created and pledged as security for the payment of the $4,000,000, principal and interest, the right being reserved to increase the total bonds to $6,000,000.

The following excerpt from the annual report to the stockholders in January, 1887, is interesting as showing that it was well understood that the property account of the property as it appeared on the books was inflated, to-wit:

"At the beginning of the year the books of the company showed a surplus of $628,559.40 which has been accumulated for a number of years, and which, under ordinary circumstances, the shareholders would be entitled to have represented by bonds or stock and divided pro rata, according to the amount of stock held by each.

"But when the change was made from horse to cable power, it became necessary to dispense with a large amount of old construction, which was contained in the property account of the company, and the doing away with that construction would necessarily affect the amount of the so-called surplus. The only legal manner of determining how much, if any, of that surplus remained, would be by an appraisement made by duly appointed commissioners, under order of court, with returns made into court. Undoubtedly the amount of such appraisement, if now made, based

as it should be, upon the earning capacity of the road, would exceed by several millions of dollars the liabilties of the company, as represented by its capital stock and bonds. There are, however, many weighty reasons why no such appraisement should be made at the present time, however desirable such a proceeding might be, when matters of taxation and other relations of corporate properties are more permanently settled by legislation." * * *

The report then goes on to describe a plan by which the same desired result may be attained without a reappraisement, as follows:

"In other words, an amount equal to the surplus in '86 has been borrowed at 5 per cent. to pay for property, and the surplus itself has been loaned to the same creditor at the same rate of interest. Hence, whenever it shall be for the interest of the company to pay such loan by an issue of stock or bonds, that amount will be available for dividends without any appraisement or court proceedings."

In plain words, by creating a fictitious liability an excuse is afforded for issuing new bonds or stock to take it up, but instead of applying the proceeds of the bonds or stock in that manner they are diverted toward the payment of dividends and the original condition of affairs restored. This proposition is so bald on the face of it as to scarcely require comment. It is chiefly remarkable as showing the frankness with which the exact situation is explained to the shareholders and their apparent ready acquiescence in the scheme proposed, as I find no record of any protest from that quarter; on the contrary, it has been the practice uniformly at each annual meeting of the shareholders to ratify, confirm and approve by specific resolution all the acts and doings of the management during the preceding year, so that there would seem to be no division of responsibility between the management and the stockholders either on this or any other account. Indeed, it would be most remarkable if any record could be found of opposition on the part of the shareholders to any plan of increasing the dividends whenever proposed by the management, however ill concealed the pretext may be, as long as any degree of plausibility can be found to support it. It is proper to state that the above proposition originated with a former management and it may be the ready disposition to thus openly juggle with the surplus had some bearing on the subsequent change in management, but if such is the fact there is nothing of record to indicate it; furthermore, no apparent effort has ever been made by subsequent managements to correct the property account in the books or determine the actual surplus of the company, the first step toward which would be the marking off of the cost value of the old

horse railroad, scarcely a vestige of which, in any tangible form, can now be found, and to that extent the present management is equally responsible for the payment of dividends from the, as ex-President Holmes rather contemptuously refers to it, "so-called" surplus which has been carried on the books as an asset down to the present time.

On April 1, 1888, another increase of $1,000,000 in the capital stock occurred. As in previous cases, the new stock was sold to old stockholders only and at par, each stockholder being privileged to purchase such amount as was indicated by his pro rata share of the whole stock outstanding previous to April 1, 1888. Just previous to April 1, 1888, the market value of the $3,000,000 stock then outstanding was $350 per share, or $10,500,000 in the aggregate. The increase of $1,000,000 reduced the pro rata mathematical value of each share to $263, and as a matter of fact the market quotations within a week after April 1, 1888, were $260 per share for the new stock, or a premium of $160 over the price paid for it by the old shareholders.

It would be impracticable to show whether or not any of the shareholders disposed of the new stock and thus realized the profit pointed out, but even if they did not and still held it at the date at which this examination is brought down, to-wit., December 31, 1897, the market price at which the stock could then be disposed of was $235 per share, or a fraction off.

I understand that the privilege of purchasing these new issues of stock at par has rarely, if ever, been allowed to lapse by the old shareholders, and it would be surprising if the opportunity was allowed to pass, since the stock has always been good collateral for loans, and a stockholder, even if indisposed to increase his investment, could easily secure a temporary loan of $100 per share, on the security of his old stock, with which to purchase the new shares, and after receiving the certificate dispose of it for cash at its enhanced market value, take up his loan of $100, and pocket the premium of $160 pointed out in the above case. In such a case the premium or bonus received is clearly equivalent to an extra dividend of 53 1-3 per cent. on the old stock.

On October 1, 1889, still another increase of $1,000,000 in the capital stock occurred under similar conditions. This new issue

was sold to stockholders of record September 15, 1889. The market price immediately after was $257 per share, the bonus $157 per share, or 39¼ per cent. on the whole stock.

During 1890 $500,000 new 4½ per cent. bonds were issued, presumably on account of the Alley "L" road.

On January 2, 1891, $2,000,000 new stock was authorized sold to stockholders of record December 15, 1890, at par. The bonus in this case was $165 per share, equivalent to an extra dividend of 66 2-3 per cent. on the old stock. The same year $120,000 new 4½ per cent. bonds were issued, making a total of $4,620,000. The amount outstanding on January 1, 1898, was $4,619,500.

On April 1, 1893, $2,000,000 new stock was sold at par to stockholders of record March 15, 1893. Before March 15, 1893, the market price was $440 per share and after March 15, 1893, $360 per share. The bonus in this case aggregated $5,200,000, or 74.29 per cent. on the $7,000,000 capital then outstanding.

This was not the only profit that year. In addition to the above, the ordinary dividends amounted to $2,100,000. The $3,000,000 Alley "L" road extension bonds, costing $2,250,000, were also distributed pro rata, as well as the $3,885,000 capital stock of the Alley "L" road, making a total of $13,435,000, reckoning the extension bonds at cost value, or an average profit of nearly 150 per cent. on the entire $9,000,000 capital stock in one year.

On July 1, 1895, another increase of $1,000,000 in the capital stock occurred, the new stock being sold to stockholders of record of June 15, 1895, at par. The bonus in this case was $185 per share, or an extra dividend of 20.55 per cent. on the old stock.

Still another increase of $2,000,000 in the capital stock occurred in 1896, the new stock being sold to stockholders of record June 15, 1896, the bonus being $122 per share, equivalent to an extra dividend of 24.4 per cent. on the old stock.

In the sixteen years from January 1, 1882, to January 1, 1898, the total dividends paid by the company, including the premiums on new stock issued, aggregate the enormous sum of $37,602,187.50, or an average of 44.63 per cent. per annum.

Of this sum, $12,657,187.50 represents the regular annual dividends of 10 per cent. in 1882, and 12 per cent. each year since, also the extra 20 per cent. bond dividend of 1882, and double cash

dividend of 1893. The stock bonuses represent $18,810.00 and the Alley "L" road bonds and stock $2,250,000 investment. The extra dividend of 1882 amounted to $500,000 and that of 1893 to $870,000.

The aggregate of the three last named dividends is $3,620,000. Even if these had not been paid there is still a deficiency of $1,628,000, which should have been withheld from the stockholders in the regular quarterly dividends in order that the proper adjustment in the permanent property account of the company might be made without showing a deficit in the balance sheet of the company on December 31, 1897.

During the same period the capital stock has been increased $10,500,000 and bonds issued amounting to $4,619,500, a total increase in the permanent indebtedness of the company of $15,119,500. The increase in the book value of the assets has more than kept pace, but included in the stock value is $5,248,027.51 properly chargeable to depreciation, as already set forth on a preceding page.

The permanent debt of the company on December 31, 1897, exclusive of capital stock, was $4,619,500 and the floating debt $232,488.22, making a total of $4,851,988.22. Deducting this from the total assets, $11,603,960.71, leaves $6,751,972.49 to represent the capital stock of $12,000,000, showing a deficit of $5,248,027.51.

Sec. 8.—Mileage of South Side Lines.

CONSTRUCTION.

	Miles, S. T.
Horse road existing December 31, 1880	45.679
New horse road built since December 31, 1880	104.545
New cable road built since December 31, 1880	8.481
New electric road built since December 31, 1880	29.031
Total	187.736
Deduct—Horse road torn up	1.901
Horse road transferred	3.241
	5.142
Total mileage December 31, 1897	182.594

RECONSTRUCTION.

	Miles, S. T.
Horse road existing December 31, 1880, afterward converted to cable road	20.815
Ditto, electric road	23.221
New horse road built since December 31, 1880, afterward converted to cable road	5.870
Ditto, electric road	90.102
Total changes	140.008

Add—Horse road built prior to December 31, 1880, unchanged	.256
Horse road built since December 31, 1880, unchanged	4.818
Cable road built since December 31, 1880 (new mileage)	8.481
Electric road built since December 31, 1880 (new mileage)	29.031
Total mileage December 31, 1880	182.594

From point of view of motive power, the mileage is as follows:

Cable road	35.166	miles, S. T.
Electric road	142.354	miles, S. T.
Horse road	5.074	miles, S. T.
Total	182.594	miles, S. T.

Sec. 9.—Relations with the Elevated Roads.

It has apparently been the uniform policy of the three principal street railway companies in Chicago to pre-empt the territory in which they operate respectively, to their sole use, and a mutual understanding has been had that each company should confine its lines to its own particular territory. So far as the establishment of new competing lines is concerned, the geographical formation of the city and its division into three distinct sections, bounded by the Chicago river and its two branches, seems to aid in this monopoly, as practically all the bridges and tunnels connecting the three sections referred to, the only avenues of traffic between them, are absolutely in the control of either of the companies for street railway purposes.

In a report made to the Fidelity Insurance Trust and Safe Deposit Co., of Philadelphia, in 1888, by special examiners who came to Chicago for the purpose of examining the street railway properties of the city, especially those of the North and West sides, particular attention is called to these natural obstacles, as it were, to the establishment of rival lines, owing to the inability of new roads to reach the business portion of the city otherwise than by means of the bridges and tunnels referred to, and speaks of the wisdom shown by the management of the companies in bringing about a contract with the city to repair and maintain in good order the old city tunnels and bridges, going so far as to move certain bridges and build entirely new ones free from all expense to the city, at the only remaining accessible points of communication across the river, in return for the exclusive privilege of operating street cars across them, as calculated to free the companies from any possibility of

competition and inspire confidence in the permanent value of the securities of the companies.

On the South Side the situation is practically the same, all the main thoroughfares into the heart of the business district being in the exclusive control of the Chicago City Railway Company, so far as street railway transportation is concerned. Under these circumstances, the only means of breaking the monopoly was in the construction of an elevated railroad over private property.

On March 10, 1888, Col. A. F. Walcott, of New York, succeeded in securing a contract for the construction of an elevated road parallel to the two main lines of the Chicago City Railway Co., thus threatening the latter company with what appeared to be serious competition at the time. On March 28 of the same year the city council granted permission for the construction of the road from Van Buren St. to 39th St., on property to be purchased or condemned, adjoining the alley between State St. and Wabash Ave. Subsequently permission to extend the road south to 67th St. was granted.

The corporate title of the new company was the Chicago and South Side Rapid Transit Railroad Co., and the date of incorporation January 4, 1888. The contract for the construction of the road secured by Col. Walcott March 10th, 1888, was transferred by him May 1, 1888, to the Rapid Transit and Bridge Construction Company of New Jersey, organized for that purpose.

The immense outlay required for the purchase and condemnation of land had a tendency to greatly discourage the enterprise in its incipiency, and the great uncertainty of its ultimate completion apparently occasioned very little apprehension on the part of the Chicago City Railway Company officials that the new road would ever materialize until after one mile of single track road of this description had actually been completed early in 1889, from 30th to 35th streets, adjoining the alley running parallel to and between State street and Wabash avenue.

About this time some of the directors and principal stockholders of the Chicago City Railway Co. became satisfied that if the World's Fair of 1893 was definitely located at Jackson Park sufficient funds would be forthcoming to complete the road to that point as projected. Accordingly steps were taken to secure control, and by

November 26, 1889, an agreement, amended December 10, 1889, was entered into between the Chicago City Ry. Co. and the Rapid Transit and Bridge Construction Co., by virtue of which the former was not only to cease all further opposition to the new enterprise, but aid substantially toward its completion, and in consideration thereof was to receive $135,000 more than one-half the entire capital stock of the Chicago & South Side Rapid Transit R. R. Co.

The contract price for the construction of the double track road from Van Buren St. to Jackson Park was $15,000,000, payable one-half in bonds and half in stock of the Chicago & South Side Rapid Transit R. R. Co. The estimated cost of the completely equipped and operative road was at the outset $6,750,000. This estimate was made by Geo. B. Cornell, Chief Engineer of the first elevated road built in Brooklyn, N. Y.; $750,000 was also set aside to reimburse the promoters, making a total of $7,500,000. Bonds for this amount were authorized and the first lot of $813,000 was sold for the same amount in cash.

It will thus be seen that the prospective profits of the deal were $7,500,000, or the entire authorized capital stock of the company, $3,885,000 of which was to accrue to the Chicago City Railway Company.

The care with which that company protected its interests in the premises may be inferred from the detailed arrangements under which the construction progressed. Not only was it represented on the board of the elevated road company by three out of five directors, but its president, C. B. Holmes, constituted one of a committee of two in full control of the finances, the other member being Col. Walcott, then vice-president of the construction company. Furthermore, all the bonds ($7,500,000) when received from the printers, were deposited with the Northern Trust Company in escrow to be drawn out only in monthly installments not exceeding the actual cost of material and labor put into the foundations, structure, etc., as the work progressed, and then only on the joint order of the two committeemen, the certificate of the chief engineer as to the work actually completed, and a certified copy of each separate resolution of the board of directors of the elevated railroad author-

izing the issue of each installment of bonds by way of reimbursement of its outlay.

Even the new chief engineer was an independent personage, appointed by mutual consent, and the person selected for this post was taken direct from the consolidated elevated railroads in New York City, where he had been chief engineer for nearly fifteen years, in order that he might be absolutely unprejudiced in favor of either party's interests as against the interests of the other.

With each installment of bonds, a certificate for a corresponding amount of capital stock was issued to the construction company, and then returned by that company and split up into certificates of a smaller denomination, half, representing the amount due the Chicago City Railway Co., being transferred to the Chicago Trading Co., of which Samuel W. Allerton, one of the directors of the City Railway Co., was president, it having been stipulated that this share of the stock was "to be placed in the hands of such person or corporation as the Chicago City Railway Company shall designate," and by resolution of the board of directors of that company passed December 13, 1889, the Chicago Trading Company was designated "as the corporation to own and hold the said stock."

The first issue of bonds under the chief engineer's certificate of work done was for $813,000, $500,000 of which were purchased at par by the Chicago City Railway Company and the proceeds deposited in the Corn Exchange Bank to the order only of the two committeemen. Subsequently another lot of $1,500,000 was sold, this time at 10 per cent. discount, one-half of which was taken by the Chicago City Railway Co. Another lot, $73,000, at the same rate of discount, was also taken by the same company, making a total of $1,323,000 in first mortgage bonds for which the Chicago City Railway Company paid $1,240,700 in cash.

It is uncertain to what extent the company aided directly in disposing of the remaining bonds, but $3,914,000 were sold in two lots to parties in Chicago, one a director in the company, at an average discount of 11.45 per cent., and the entire issue of $7,500,000 produced a net return of only $6,157,110, or less than the original estimate of the cost of the completed road.

Early in 1892 it became evident that the cost of the completed road would greatly exceed the first estimate, and thereupon dis-

sensions arose between the parties in interest, and for many months after the money gave out, the work of construction was at a full stop, the construction company apparently being unable to furnish more funds, and the street railway company apparently being unwilling to do so until the construction company retired.

Furthermore, the extra $135,000, or controlling interest in the stock, which it was stipulated should be transferred to the street railway company, was being withheld by the construction company. Finally, on December 15, 1892, the construction company retired and the property was turned over to the elevated railroad itself to complete. The stock in dispute was also transferred to the Chicago Trading Company, making a total of $3,885,000 standing in the name of that company out of a total of $7,500,000.

One of the legacies left by the construction company was the general manager of that portion of the road that had been opened for traffic and was being operated by the construction company. This individual was also the nominal president of the elevated railroad company. Apparently he did not appreciate the logic of events, for he held on long enough to be removed to make room for the brother of the president of the Chicago City Railway Co.

At a meeting of the stockholders held February 16, 1893, a new issue of bonds, amounting to $5,000,000, was authorized, purporting to be a first mortgage on the 63d St. line of the company. In the meantime the Chicago City Railway Co. had advanced $912,000 more toward the completion of the elevated road, and between February 16, 1893, and March 27, 1893, $350,000 additional, making a total of $1,262,000, without other security than the ordinary notes of the elevated railroad company.

This remarkable display of confidence in the management of the elevated railroad company, considering the safeguard under which all previous advances had been made, may possibly be explained by the supposition that the two companies were at that time practically one and the same institution.

On March 28, 1893, a further advance was made, bringing the total up to $1,500,000. Thereupon three new notes of $500,000 each were issued by the elevated railroad company to the Chicago City Railway Co., each secured by 666 of the new $1,000 so-called extension bonds, to take up the others. Between March 28, 1893,

and July 26, 1893, the total amount advanced was increased to $2,250,000, secured by $3,000,000 of the new bonds.

The road had now been operated through the built up portion of the territory through which it was constructed for more than a year, and it had long been evident that it could not pay operation expenses and interest on its bonded debt. In fact, up to March 30, 1893, it was $30,000 behind on its operating expenses alone.

Under these circumstances there was no option left the Chicago City Railway Co. but to accept the $3,000,000 collateral on the $2,250,000 loan in full payment thereof, and return the notes to be canceled, and this was authorized August 5, 1893, and reported done August 29, 1893.

The first lot of $500,000 first mortgage bonds purchased by the Chicago City Railway was disposed of for cash prior to 1893, and the balance, $823,000, was likewise disposed of during 1893. On the other hand, the so-called extension bonds ($3,000,000) were distributed among the stockholders of the Chicago City Ry. Co. as an extra dividend the same year (1893).

The $3,885,000 stock of the elevated railroad company was surrendered by the Chicago Trading Company and new certificates were issued by the elevated railroad company in the names of the individual stockholders of the Chicago City Railway Co. in proportion to their holdings in the latter company.

EXHIBIT II.—NORTH CHICAGO CITY RAILWAY CO.

Sec. 1.—Lease of Road to New Company.

This company was incorporated February 14, 1859. The great fire of 1871 practically destroyed all of its property. In 1872 it began to reconstruct its track, and, by May 24, 1886, had in operation 44.774 miles of track (one mile of double-track road being counted as two miles of track).

On May 24, 1886, it entered into an operating agreement with the North Chicago Street Railroad Company, by the terms of which it surrendered control of its property for the period of 999 years. The motive for this act is set forth in the preamble to the agreement, a part of which is as follows:

WHEREAS, there is a growing demand upon said railway company by the public for improved motive power, extensions of new lines, and other improvements in connection with its plant and lines of street railway now owned, or leased by it; and

WHEREAS, the said railway company is without the facilities for constructing and operating to the best advantage such improved motive power, and purposes to make a contract with some party who has faith that the contemplated improvements will be profitable and who has the facilities for making them; and

WHEREAS, the said railway company has been in negotiation with said railroad company with the view of coming to some understanding that would be mutually satisfactory, upon which the said railroad company would contract to construct and put in operation the improved motive power and otherwise extend and improve the plant and lines of said street railway company, and have agreed upon the terms and conditions hereafter set forth; and

WHEREAS, the said railway company has accepted said terms and has requested that the said railroad company furnish for it the appliances necessary for such new motive power, and to operate the same, and also from time to time, when feasible and desirable, to make such extensions and other improvements as the public may require, and be approved by the Board of Directors of said companies, it being understood that a part of the lines of said railway company shall be cabled within the time hereafter named, and the balance from time to time, as may be directed in the manner aforesaid, and to insure the proper operation of the cable portion, the whole line must be put in exclusive charge of the railroad company, * * *

The "railway company" referred to was the North Chicago City Railway Company and the "railroad company" the North Chicago Street Railroad Company.

The terms referred to as having been agreed upon were, in brief, as follows:

"In consideration of mutual promises, and of the sum of one dollar by each to the other respectively paid, * * * [the parties concerned], * * * do covenant, promise and agree to stand with each other, as follows:"

1. Agreement to continue for 999 years " * * * and during said term shall bind the parties without any right in either company to revoke the same without the written consent of the other."

2. The North Chicago Street Railroad Company to construct, with reasonable speed, a cable road on North Clark Street, " * * * commencing at some convenient point near the north end of the Bridge crossing the Chicago River, to a point near Diversey Street in the town of Lake View," the same to be completed within two years after permission from the city and town authorities is granted " * * * and for the purpose of perpet-

uating reliable evidence to be used in an equitable adjustment between the parties hereto in case this contract shall be terminated in any manner as hereinafter set forth, it must keep an accurate account of its expenditures in and about said improvements, charging therefor the actual cost thereof, * * * ."

"The railway company will execute and deliver a mortgage of its franchises and property to secure the payment of all amounts and interest thereon at the rate of six per cent per annum, payable semi-annually, which shall be expended by the said railroad company in such construction, or the making of the improvements and extensions herein provided for. The amount so expended, with the interest thereon, as before provided, shall, in the event of the termination of this agreement by the parties hereto, or otherwise, or by reason of the intervention of any court of competent jurisdiction, at once become due and payable, and, if the amount found to be due shall not be paid, the said mortgage may be immediately foreclosed."

3. The North Chicago Street Railroad Company is required to construct and operate such cable road as is necessary " * * * other than above provided for * * [but] * * such additional construction shall only be with the assent of both of the parties * * [or] * * as shall be mutually agreed upon from time to time."

"Such additional improvements shall be constructed by said railroad company, and be paid for, and be secured for the repayment thereof by railway company in the manner heretofore provided for as to that portion of said railway on North Clark Street, between the bridge and Diversey Street, or at the option of said railroad company, it shall have the right to require said railway company to issue its bonds for the amount of any such expenditures in the form, when due, and bearing such rate of interest as said railroad company may require, and to be secured by mortgage on all, or a part, of the property of said railway company."

4. It is expressly stipulated that the North Chicago Street Railroad Company " * * * will hereafter supply, at its own cost and charge, such cars, harness and horses as shall be necessary in addition to those now owned by the railway company, * * [and] * * the same thus supplied shall be the property of the railroad company."

5. "Betterments shall be made and constructed by the railroad company as the same shall be agreed upon hereafter by the parties hereto. The cost of the same shall be paid to the railroad company in the manner heretofore provided in the case of construction of cables and motors. Within the term 'betterments' shall be comprised all construction, other than the Clark Street line and other improvements which the railroad company has agreed to do in connection therewith and replacements, such as extension of railways, new buildings and alterations and improvements of existing railways and buildings."

6. An appraisement of all the personal property of the North Chicago City Railway Company is provided for, the North Chicago Street Railroad Company to be permitted " * * * to use the same or their proceeds without charge * * [but] * * in case of the termination of this contract for any cause, the railroad company shall pay to the railway company the amount of said appraisement with interest only from the time of such termination."

As an offset, any property of the same character owned by the North Chicago Street Railroad Company that may be in use on the North Chicago City Railway Company's road at the time of the termination of the agreement must likewise be appraised and its value may be set off against the claim of the North Chicago City Railway Company.

7. Quarter-annually, commencing July 1st, 1886, the North Chicago Street Railroad stipulates to pay the other company $37,500, also the interest on all bonds and mortgages of the "railway company" then outstanding "and which may hereafter be created in the renewal and extension thereof, and all which may hereafter be created for the betterments and new constructions heretofore provided for * * * "

It is further stipulated that " * * * as soon as the cable to be constructed on North Clark Street, as herein provided, is completed, the railroad company shall pay to the railway company out of its own funds $500,000 in cash, or, at its own option, in lieu thereof the same amount in the shares of its capital stock, assessments paid * * * ."

Sec. 2.—Financial Condition in 1886.

The inventory of property transferred to the North Chicago

Street Railroad Company under the above agreement was as follows:

1,691 Horses, at	$100	$169,100.00
175 Box cars, at	700	122,500.00
175 Open cars, at	500	87,500.00
10 Snow-plows, at	500	5,000.00
6 Sweepers, at	1,000	6,000.00
6 Salters, at	200	1,200.00
7 Hay-cutters, at	50	350.00
575 Sets harness, at	15	8,625.00
9 Wagons, at	50	450.00
4 Buggies, at	50	200.00
1,400 tons of hay, at	10	14,000.00
Horseshoes and nails		1,500.00
Track material		6,750.00
Track tools, shovels, picks, etc		250.00
Material in hands of purchasing agent		420.79
Office furniture		500.00
Stable furniture, etc.—		
City Limits	200	
Lincoln Ave	200	
Racine Ave	150	
Clybourn Ave	150	
Kroger St	150	
Larrabee St	150	
Sedgwick St	150	
Clark St	50	
		1,200.00
Cash		60,371.59
Inter-Ocean bonds, 6 at $500		3,000.00
Due from Merchants Loan & Trust Co		147.28
Due from City of Chicago		425.00
Total		$489,489.66

A trial balance of the general ledger of the North Chicago City Railway Company on May 24, 1886, exhibits its financial condition as follows:

TRIAL BALANCE, MAY 24, 1886, NORTH CHICAGO CITY RY. CO.

Construction	$908,324.78	Capital stock	$500,000.00
Real estate	418,024.84	Bonds	1,247,000.00
Buildings	245,188.37	Bills payable	54,000.00
Cars	210,000.00	Accounts payable	25,001.96
Horses	169,100.00	Income account	228,275.69
Miscellaneous equipments	12,200.00		
Harness	8,625.00		
Wagons and buggies	650.00		
Hay	14,000.00		
Horseshoes and nails	1,500.00		
Stable account	1,550.00		
Tools	250.00		
Office furniture	500.00		
Supplies	420.79		
Inter-Ocean bonds	3,000.00		
Merchants' Loan & Trust Co	147.28		
City of Chicago	425.00		
Cash	60,371.59		
	$2,054,277.65		$2,054,277.65

A trial balance of the books of the North Chicago Street Railroad Company immediately after that company assumed control makes the following exhibit:

TRIAL BALANCE, MAY 24, 1886, NORTH CHICAGO ST. RAILROAD CO.

Liabilities of N. C. C. Ry. Co. assumed	$79,001.96
Cash	60,371.59
Merchants' Loan & Trust Co	147.28
City of Chicago	425.00
Inter-Ocean bonds	3,000.00
	$142,945.83
Bills payable N. C. C. Ry. Co	$54,000.00
Accounts payable N. C. C. Ry. Co	25,001.96
Income account	63,943.87
	$142,945.83

A comparison of the foregoing schedules shows that with the exception of the $60,371.59 cash, $147.28 due from the Merchants' Loan & Trust Company, $425 due from the City of Chicago and the $3,000 Inter-Ocean bonds, none of the property referred to in the inventory was transferred to or entered in the books of the new company. Neither was any entry made to represent the 44.774 miles of the road, nor the real estate, buildings, and equipment transferred under the lease. It is true, these properties did not form part of the permanent assets of the North Chicago Street Railroad Company, although the long lease of 999 years contemplated practically a complete transfer; neither did the items enumerated in the inventory, nevertheless, some of the items in the inventory are taken up, and, as will be seen above, the incompleteness of the entries necessitated a credit to Income Account of $63,943.87 to balance the accounts, although the company had as yet derived no income from the use of the property.

An intelligent record of the transactions affected by or growing out of the lease required a debit entry on the books of the lessee company of a sum or sums representing either the book or appraised value of all the property of every description transferred, whether permanently or temporarily, and a corresponding entry representing the aggregate value of the property to the credit of the North Chicago City Railway Company to balance the account.

Sec. 3.—N. C. S. R. R. Co. Buys Controlling Interest.

On June 29, 1886, or one month following the lease, the directors of the North Chicago Street Railroad Company determined to

purchase 2,501 of the 5,000 shares of the North Chicago City Railway Company's capital stock and authorized the expenditure of $1,500,600 for that purpose, or at the rate of $600 per share ($100 being par).

The actual purchase was not made until September 16, 1886, when the books of the North Chicago Street Railroad Company show the following entries:

Purchase of North Chicago City Railway Company stock, Dr.—
To Wm. L. Elkins and Peter A. B. Widener, for 2,501 shares of North Chicago City Railway Company stock as per resolution of Board of Directors passed June 29, 1886..... $1,500,600

Immediately following this entry, and of the same date, is another showing that the credit to William L. Elkins and P. A. B. Widener was partially offset by the delivery to them of the first issue of bonds made by the North Chicago Street Railroad Company, viz.:

Wm. L. Elkins and Peter A. B. Widener, Dr.—
To bond account for 3,000 5 per cent 20-year $500 mortgage bonds, dated July 1, 1886, issued in pursuance to resolution of Board of Directors, passed June 29, 1886..... $1,500,000

According to the 1896 issue of the *Economist Street Railway Supplement*, these shares were only a short time previously purchased from Jacob Rehm, V. C. Turner and others by the United States Construction Company, from which Company they were evidently transferred to William L. Elkins and Peter A. B. Widener before delivery to the North Chicago Street Railroad Company as above noted.

On this subject the *Economist* says:

In March, 1886, Charles T. Yerkes and his Philadelphia associates purchased from Jacob Rehm 729 shares of the capital stock, from V. C. Turner and others represented by Mr. Turner, 1,772 shares, making a total of 2,501 shares of the 5,000 shares outstanding. The price was $600 a share. The total payment of $1,500,600 was made in cash at the Merchants' Loan & Trust Company March 23, 1886. The purchase was made in the name of the United States Construction Company.

There is nothing in the books of either the lessee or lessor company to confirm this statement If true, it would seem to indicate that whatever profit there was in the deal accrued solely to the benefit of Jacob Rehm and V. C Turner and those whom they represented, as the stock was turned over to the North Chicago Street Railroad Company by Elkins and Widener at the same price per share that Rehm and Turner received for it.

Sec. 4.—Contracts for Conversion to Cable Traction.

On May 24, 1886, the North Chicago Street Railroad Company entered into a contract with the United States Construction Company " * * * to construct and put in operation a cable line on Clark Street from at or near Kinzie street ..... to the Limits barn in Lake View." The United States Construction Company was also to secure for the railroad company the right to lay tracks on La Salle Street and Avenue between Illinois and Jackson streets, and on Illinois between Clark and Wells streets, and through the La Salle Street tunnel. No particular reference was made to a cable line on Wells Street, nor to the loop line on Monroe, Dearborn and Randolph streets, nor to the purchase of any land upon which to erect power houses. All of these matters seem to have been left to the judgment of the Construction company. Even the consideration to be paid the Construction company is uncertain, except that " * * * not less than $4,500,000, payable in the stock of the said company * * [is named] * * provided the length of said North Chicago Street Railroad Company does not exceed 15 miles."

Under this contract 5.958 miles single track horse road on North Clark Street, from Wells Street to Diversey Street,were converted into cable road and likewise 3.543 miles single track on Wells Street from Illinois to the junction of Wells Street and North Clark Street.

The only cable line specifically referred to in the lease of May 24, 1886, was that to be constructed on North Clark Street, and whatever expense the North Chicago Street Railroad Company might incur in its construction was to be a charge against the North Chicago City Railway Company, to be liquidated only in the contingency of a termination of the lease at the end of or before the expiration of 999 years. In the event of any other cable road being constructed (the lease providing that this only could be done by mutual agreement), it was optional with the North Chicago Street Railroad Company to carry the expense as a charge against the lessor company, the same as in the case of the North Clark Street line, or it could require the lessor company to increase its outstanding bonded indebtedness to the extent of the sum expended for construction and deliver the new bonds to the lessee company by way

of reimbursement for its expenditures. In either case, however, the lease stipulated that " * * * for the purpose of perpetuating reliable evidence to be used in an equitable adjustment between the parties hereto * * " an accurate account of the expenditures must be kept and into that account only must be charged " * * the actual cost of the imrovements * * * ."

No such records are to be found in the books of the lessee company, and it does not appear upon what showing the directors of the lessor company consented to the issue of new bonds for such improvements as was the case several times subsequent to the transfer of the property to the lessee company. For example, on September 20, 1887, the lessee company entered into a contract with the United States Construction Company to cable Lincoln Avenue from Wrightwood Avenue to Center Street and Center Street from Lincoln Avenue to North Clark Street, forming a junction at that point with the cable road on North Clark Street, a total of 2.724 miles single track cable road. The contract also provided for the erection of a new power house at Wrightwood and Lincoln avenues, on land already owned by the North Chicago City Railway Company, on which was standing the car barn of that company. The consideration to be paid was $500,000 in 4½ per cent 40-year bonds of the North Chicago City Railway Company.

Three hundred of these bonds, representing $300,000, were issued by the last-named company on May 1, 1888, and delivered to the United States Construction Company, and on February 21, 1889, 198 more bonds, representing $198,000, were delivered, and $2,000 in cash to complete the contract.

On January 25, 1890, a similar contract was made with the United States Construction Company to cable Clybourne Avenue from the terminus near Fullerton Avenue to Division Street and Division Street to the junction with the cable road on Wells Street at Division and Wells streets, a distance of 4.459 miles single track cable road. Nothing further was called for by this contract, the consideration being $500,000 in 4½ per cent bonds of the North Chicago City Railway Company.

By the terms of this contract the approximate cost of constructing a mile of cable road is obtained. Assuming that it required the full $500,000 to complete the 4.459 miles of single track

referred to and omitting from consideration the 4,000 lineal feet of underground conduit on Division and Clark streets, connecting this section of road with the power house on Clark Street, the cost per mile would be $112,132.77. As this assumption allows no profit for the Construction company, it cannot very well be under the actual cost, and, if taken as a basis for estimating the cost of the entire road, does no injustice to the management for that reason, since the absence of any other reliable data on the subject renders its adoption necessary.

At the same time, there is every reason to suppose that the cost originally estimated was $425,000, with $75,000 added for profit and risk, being a margin of nearly 20 per cent over the estimated cost, a percentage not infrequently adopted in estimating for contract work. This gives an estimated cost of $95,000 per mile of single track, which is a little less than the actual cost per mile of the Blue Island Avenue, Halsted Street and Van Buren Street cable lines of the West Chicago Street Railroad Company.

An earnest endeavor has been made to induce the management of the North Chicago Street Railroad Company to produce the books of the United States Construction Company for examination, but without success, as fully explained elsewhere in this report. The necessity for some definite information concerning the actual cost of the work done by the United States Construction Company is so obvious that, in the absence of the books referred to, an estimate of the cost of the whole road based upon certain parts, the cost of which is known, would seem to be warranted and fair.

Certainly no injustice will be done the management of the North Chicago Street Railroad Company if, in adopting the sum of $112,132.77 as the average cost per mile of the entire North Side cable road, it should subsequently appear that the amount actually paid the Construction company was greatly in excess of that price. On the contrary, when it is considered that the sum mentioned is $6,000 per mile greater than the cost of a precisely similar road on Blue Island Avenue, Halsted Street and Van Buren Street, including the Adams Street loop, both being built from practically the same specifications, and that it is $30,000 per mile greater than the first experimental section of cable road ever built in Chicago, being the lines on State Street and Wabash and Cottage Grove avenues,

north from Thirty-ninth street, including the downtown loop, constructed nearly ten years earlier than the cable road on the North Side; and $50,000 per mile greater than the subsequent extensions of the South Side cable lines, completed about the same time as the North Clark and Wells Street lines, and even $50,000 per mile greater than the track construction of the Van Buren Street tunnel, it is difficult to see how any suspicion of unfairness to the railroad management can attach to the sum selected for the purpose specified, particularly as the management has created the necessity for its selection by not producing the records which the lease of May 24, 1886, explicitly stipulated should be preserved.

In addition to the 16.684 miles single track cable road already referred to as having been constructed by the North Chicago Street Railroad Company, for the account of the North Chicago City Railway Company, there was also constructed the La Salle, Monroe, Dearborn and Randolph streets loop of 1.626 miles single track, making a total of 18.310 miles single track cable road built by the United States Construction Company at an estimated aggregate cost of $2,053,151.00, or at the rate of $112,132.77 per mile.

On January 12, 1887, a contract was entered into with the United States Construction Company to build 11.385 miles single track new horse road, cost of which I have estimated at $255,914.99, or $22,478.26 per mile, being the same rate per mile as the actual cost for similar road built by the North Chicago Street Railroad Company about the same time, viz.: 11.682 miles single track at $22,478.26 per mile, or an aggregate of $262,591.03.

In addition thereto the lessee company built 3.626 miles single track new electric road at $20,530.15 per mile, and converted 22.280 miles single track horse road into electric road at $14,428.15 per mile, and 28.173 miles at $20,530.15 per mile, making a grand total of $3,740,926.65 expended for track, including $115,885.61 for miscellaneous paving and $79,001.96 old floating debt assumed for account of the North Chicago City Railway Company

Under the contract of May 24, 1886, the United States Construction Company erected two cable power houses—one on Clark Street, between Elm and Maple streets, and one on Illinois Street, corner La Salle Avenue. The one erected at Clark Street and Elm Street is on property belonging to the North Chicago City

Railway Company. Four engines of 500 horse-power each were originally installed at this power house.

Now the most expensive cable power house in the city is that which operates the Blue Island Avenue and Halsted Street cable system on the West Side, the machinery in which cost $173,240.47. The engines are 3,600 horse-power. The machinery in the Van Buren Street power house cost $116,627.53, and the engines are 2,600 horse power. At the same rate of decrease in cost per horse power, the cost of the machinery at the Clark Street power house would be $84,659.79, or $42 per horse-power.

The cost of the Van Buren Street power house was $142,326.44 and that of the Blue Island Avenue power house $233,290.50, both including the land as well as the buildings, whereas the land on which the Clark Street power house is erected was already owned by the North Chicago City Railway Company. A fair estimate of the cost of the building, therefore, would not exceed $50,000, or $135,000 for the building and machinery, and $200,000 for the land, building and machinery at Illinois Street and La Salle Avenue.

The contract of September 20, 1887, for the Lincoln Avenue cable also provided for the erection of a power house at Lincoln and Wrightwood avenues. The contract price for the cable road and power house was $500,000. At $112,132.77 per mile for the 2.724 miles of single track cable road would leave $194,550.33 to cover the cost of the power house and machinery, and allow for the profit of the United States Construction Company. As the land on which the power house is erected was already owned by the North Chicago City Railway Company, if 10 per cent, or $50,000, is deducted for profit, the balance, $144,550.33, would seem to be a fair estimate of the cost of the power house and machinery.

The contract of January 12, 1887, in addition to providing for the construction of 11.385 miles of single track horse road, required the construction of a brick barn adjoining the Clark Street power house, the cost of which was approximately $75,000, the land being owned already by the North Chicago City Railway Company. It also required the removal of the Wells Street bridge to Dearborn Street and the erection of a new four-track iron bridge at Wells Street. The contract of May 24, 1886, also required the erection of a new four-track iron bridge at Clark Street.

The cost of these bridges was as follows: Clark Street, $132,375; Wells Street, $145,750; total, $278,125.

Sec. 5.—Cost of Reconstruction.

This completes all the expenditures made for account of the North Chicago City Railway Company down to December 31, 1897, and includes the cost of all construction done by the United States Construction Company on the North Side, viz:

18.31 miles cable road, at $112,132.77	$2,053,151.00
11.385 miles horse road, at $22,478.26	255,914.99
Clark street power house and machinery	135,000.00
Illinois street power house and machinery	200,000.00
Lincoln avenue power house and machinery	144,550.33
Clark street barn	75,000.00
Clark and Wells street bridges	278,125.00
Total	$3,141,741.32

For these improvements the United States Construction Company has received $4,500,000 in the capital stock of the North Chicago Street Railroad Company, $998,000 in 4½ per cent bonds of the North Chicago City Railway Company, and $710,908.39 in cash from the North Chicago Street Railroad Company—a total of $6,208,908.39, or $3,067,167.07 *in excess of the approximate cost of the betterments furnished.*

The improvements paid for by the North Chicago Street Railroad Company direct, without the intermediation of a construction company, were as follows:

11.682 miles new horse road, at $22,478.26		$262,591.03
3.626 miles new electric road, at $20,530.15		74,442.32
28.173 miles electric road converted from horse road, at $20,530.15		578,395.92
22.280 miles horse road, at $14,428.15		321,543.82
Real estate improvements		214,865.79
Miscellaneous paving		115,885.61
Miscellaneous—		
Electric light LaSalle street tunnel	$3,200.00	
Dearborn street bridge	2,934.00	
Wells street bridge	779.40	
Clark street cable station	9,314.29	
LaSalle avenue cable station	21,990.46	
Cable shears	340.00	
Elm street station	2,143.00	
Lincoln avenue station	1,353.12	
Pumping station LaSalle street tunnel	764.17	
Nast Splicing system	3,000.00	
Loop alterations	8,854.84	
		54,673.28

Lincoln avenue renewal	$8,496.77	
Limits loop	3,527.00	
		12,023.77
		$1,634,421.54

making a grand total of $4,776,162.86.

To this should be added the $79,001.96 old floating debt of the lessor company assumed and paid by the lessee company, and the $3,067,167.07 profit of the United States Construction Company on the several contracts for construction, making the total expenditures of the lessee company for account of the lessor company $7,922,331.89. In part payment the lessor company has issued $1,750,000 in bonds, leaving a balance of $6,172,331.89 still due lessee company on December 31, 1897.

Sec. 6.—Original Cost of Horse Road.

The mileage of this road on May 24, 1886, was 44.774 miles single track horse railroad, and cost, according to the books of the company, $908,324.78, or an average of $20,286.88 per mile.

Of the original road there still remains unchanged 0.153 miles horse railroad, representing an original cost value of $3,103.89.

The remaining 44.621 miles single track have been converted into cable and electric road, as follows: 16,448 miles into cable at $112,132.77, $1,844,359.80; 28.173 miles into electric at $20,530.15, $578,395.92. Since the lease of May 24, 1886, the following road has been built: 1.862 miles new cable at $112,132.77, $208,791.20; 23.067 miles horse at $22,478.26, $518,506.02. Of the 23.067 miles single track new horse road 22.28 miles were subsequently converted into electric road at $14,428.15 per mile, or $321,543.82 in the aggregate. The remaining 0.787 miles is still unchanged as horse railroad.

In addition to the foregoing road 3.626 miles single track new electric road were built at $20,530.15 per mile, or $74,442.32 in the aggregate, making a grand total of $4,454,363.86, recapitulated as follows:

44.774 miles original horse road, at $20,286.88	$908,324.78
16.448 miles original horse road converted into cable, at $112,132.77	1,844,359.80
23.067 miles new horse road, at $22,478.26	518,506.02
28.173 miles original horse road converted into electric, at $20,530.15	578,395.92
22.280 miles new horse road converted into electric, at $14,428.15	321,543.82
1.862 miles new cable, at $112,132.77	208,791.20
3.626 miles new electric, at $20,530.15	74,442.32
	$4,454,363.86

Sec. 7.—Original Cost of Present Assets.

Of the above road there was still existing on December 31, 1897, the following:

18.310 miles	cable, at $112,132.77	$2,053,151.00
22.280 miles	electric, at $14,428.15	321,543.82
31.799 miles	electric, at $20,530.15	652,838.24
22.280 miles	paving relaid when road was converted from horse to electric	115,885.61
0.153 miles	horse road, at $20,286.88	3,103.89
0.787 miles	horse road, at $22,478.26	17,690.39
73.329 miles		$3,164,212.95

showing a total depreciation amounting to $1,290,150.91.

In the case of the 54.079 miles single track electric road in the above schedule, a large amount of the pavement already down was relaid when the road was converted from horse to electric road. The original cost value of such pavement was $135,952.80, and by being relaid became incorporated into the cost value of the new electric road.

The following schedule shows the distribution of the cost value of the 54.079 miles single track electric road of the North Chicago City Railway Company on December 31, 1897:

Overhead and underground electric construction.	$405,555.19;	per mile,	$7,499.31
Paving	329,990.30;	per mile,	6,102.00
Steel rails, 85 lbs	226,906.89;	per mile,	4,194.29
Miscellaneous material and labor	147,882.48;	per mile,	2,734.55
	$1,110,334.86		$20,530.15

The distribution of the cost of paving was as follows:

Granite	30,521	square yards, at	$2.00,	$61,041.44
Cobble	161,933	square yards, at	1.25,	202,415.99
Brick	8,626	square yards, at	1.60,	13,802.14
Wood	52,731	square yards, at	1.00,	52,730.73
Total	253,811	square yards,		$329,990.30

These schedules include the $135,952.80 of pavement relaid.

According to the lease of May 24, 1886, the personal property of the North Chicago City Railway Company turned over to its successor stands as a charge against the latter at the appraised value agreed upon, to-wit: $489,489.66.

The real estate and buildings existing at the time of the lease, representing an original cost value of $245,188.37 and $418,024.84 respectively, have also to be accounted for.

On the other hand, the lessee company has expended for miscellaneous improvements for account of the lessor company, from

May 24, 1886, to December 31, 1897, the sum of $281,562.84 and $278,125.00 for the Clark and Wells Street bridges, for which it is entitled to credit under the terms of the lease.

It has also made the following special expenditures for account of the lessor company, viz:

Lincoln avenue power house and machinery	$144,550.33
Clark street power house and machinery	135,000.00
Illinois street power house and machinery	200,000.00
Clark street barn	75,000.00
Total	$554,550.33

To recapitulate, there existed on December 31, 1897, the following assets:

73.329 miles single track road	$3,184,280.14
Real estate	245,188.37
Buildings	1,187,440.96
Personal property per inventory	489,489.66
Total	$5,106,399.13[1]

Sec. 8.—Resume of Assets and Liabilities.

The outstanding liabilities on December 31, 1897, were as follows:

Capital stock	$500,000.00
First mortgage 6 per cent. bonds	500,000.00
Consolidated 4½ per cent. mortgage bonds	2,497,000.00
Due North Chicago Street Railroad Company for expenditures for betterments	6,172,331.89
	$9,669,331.89

showing an excess of $4,562,932.76 over the cost value of the existing property.

As this cost value is only $2,109,399.13 in excess of the outstanding bonds which are the first lien against the property, it will be seen that there is a loss of $4,062,932.76 on the claim of the North Chicago Street Railroad Company, and nothing in the way of tangible property to secure the stockholders.

[1] In strict accordance with the contract, the item, "Personal property per inventory, $489,489.66," is an asset, but when ascertaining the *net* assets of *both* companies this item should be excluded, as the property is now in the possession of the North Chicago Street Railroad Co. and is included in its assets. Thus the original cost of the property now actually possessed by the N. C. C. Ry. Co. is $4,616,909.47.

EXHIBIT III.—NORTH CHICAGO STREET RAILROAD CO.

Sec. 1.—Early Operations.

This company was incorporated May 18, 1886. Six days later, or on May 24, 1886, it entered into an operating agreement or lease with the North Chicago City Railway Company, the full particulars of which are given under the head of North Chicago City Railway Company. (See Exhibit II., Sections 1 and 2.) The consideration to be paid by the lessee company was $37,500 on the first day of July, 1886, and the same amount quarterly during the continuance of the agreement, being in the nature of a guaranteed dividend of 30 per cent. per annum on the capital stock of the lessor company In addition, the lessee company agreed to guarantee the interest of all bonds and mortgages of the lessor company then existing or which might thereafter be created, and to pay a bonus of $500,000 in cash or capital stock of the lessee company.

One June 29, 1886, the board of directors of the North Chicago Street Railroad Company authorized the purchase of 2,501 shares of the capital stock of the lessor company at $600 per share, or $1,500,600 in the aggregate, and, in order to provide the funds with which to make the purchase, decided to issue first mortgage 5 per cent. bonds dated July 1, 1886, in the sum of $1,500,000, to be partly secured by the deposit in trust of 2,501 shares of stock referred to. On September 16, 1886, the bonds, which run to William L. Elkins, were issued to William L. Elkins and Peter A. B. Widener, from whom the 2,501 shares are presumed to have been received in exchange the same day.

Thirteen months later, or on November 18, 1887, the board of directors of the North Chicago Street Railroad Company passed a resolution reciting that "Whereas, the stockholders of the said North Chicago City Railway Company desire said payment," referring to the $500,000 bonus to be paid under the lease or operating agreement of May 24, 1886, " * * * to be made in the stock of this company and not in cash; resolved, that the Treasurer purchase 5,000 shares and deliver the same."

According to an official "History of the Yerkes System of Street Railways in the City of Chicago," page 33, I find the following reference to this payment: "As a further consideration for

the lease, the stockholders of the North Chicago City Railway Company received stock in the new company to an amount equal to the par value of their holdings in the old company." As 2,501 shares of the old company, entitling the owner to a like number of shares in the new company in accordance with the above division, were at that time deposited with the Fidelity Insurance, Trust & Safe Deposit Company of Philadelphia, in trust for the benefit of the North Chicago Street Railroad Company, it would seem that part of the stock proposed to be divided would revert to the last-named company. This was not the case, however, notwithsanding the following entry in the books of the company under date of June 15, 1888, which shows that the full $500,000 was distributed, viz:

Operating agreement with North Chicago City Railway Company, Dr.—

To cash United States Construction Company for 5,000 shares of the capital stock of North Chicago Street Railroad Company, at par, purchased as per resolution of Board of Directors, passed November 18, 1887, for the purpose of issue to stockholders holding dividend certificates issued by the North Chicago City Railway Company to its stockholders in lieu of the $500,000 to be paid them by this company, as per operating agreement, dated May 24, 1886..... $500,000.00

I can find no record in the book of account of the North Chicago City Railway Company of the issue of $500,000 in dividend certificates by that company, although such may have been done after the books were turned over to the lessee company on May 24, 1886, and no record made.

Sec. 2.—Bonds Issued as Dividends.

In examining the accounts prior to May 24, 1886, I find that several large dividends were paid in bonds. For example, in December, 1884, a dividend of $250,000 was declared, payable in bonds, being 50 per cent. on the capital stock of the company. In December, 1882, another dividend of $250,000 was declared, payable in bonds, and during the same month what purports to be a sale of $250,000 more bonds was in reality another dividend of $250,000, making $750,000 in dividends paid in bonds. During 1882 dividends amounting to 107 per cent. were paid.

Of the $1,247,000 bonds of the North Chicago City Railway Company outstanding at the time of the lease of the road to the North Chicago Street Railroad Company, all but $497,000 were

issued as dividends to stockholders, and I am of the impression that still another dividend in bonds was paid prior to January 1, 1881, but, as the first ledger of the company cannot be found, although other books of the original set are still in the possession of the lessee company, I am unable to confirm the impression, if at all, except by laborious work in reconstructing a new ledger from such data as I may be able to find in other books and records.

The resolution of the board of directors of the North Chicago City Railway Company of November 2, 1882, in reference to the bond dividend of 1882, authorized "50 per cent. on capital stock, payable in 6 per cent. $1,000 bonds and convertible certificates bearing date of November 1st, 1882." The bonds being for an even thousand dollars each, it became necessary to issue both bonds and convertible certificates to each shareholder. For example, L. S. Buckingham is charged with having received $10,000 in bonds and a convertible certificate for $800 on December 4, 1882, being 50 per cent. of the stock standing in his name, to-wit: $21,600. The bonds issued were numbered 1 to 10 inclusive. Bond 21 went to E. Buckingham, as also bonds 23 to 25, inclusive. On December 5, 1882, bonds 26 to 28, inclusive, are recorded as having been given to Martha J. Marble; bonds 32 to 34, inclusive, and 38 to Annie G. Moore, and 39, 40 and 43 to Julia F. Porter. In the same manner 250 bonds were issued during the month of December, 1882, the highest number being 471, issued to Mary H. Jones on December 30, 1882. All of these bonds were charged to dividend account.

On precisely the same dates during the month, and to the same persons, the records show there was sold for cash an exactly even sum in bonds and convertible certificates, and the remarkable part of it is that every stockholder seemed to be of an even disposition financially, immediately purchasing an additional bond and certificate for each bond and certificate given to him or her as a dividend.

There was apparently no condition requiring a stockholder to purchase a $1,000 bond before he could be paid his dividend of that amount; nevertheless in the issue of the 500 bonds there was undoubtedly an understanding between the company and the shareholders beforehand of some kind, as there is no break in the bond numbers issued when the $250,000 dividend and alleged sale of $250,000 in bonds are taken together. For example, L. S. Buck-

ingham is charged with receiving bonds 1 to 10, inclusive, and a certificate for $800, on December 4, 1882, as a dividend, and on the same date is credited with having paid the company $10,000 for bonds 11 to 20, inclusive, and $800 for another certificate of that amount. In the same manner E. Buckingham received bond 21 and a certificate for $700 as a dividend, and bond 22 and a certificate, also for $700, in exchange for $1,700 in cash, and so on throughout the list of shareholders.

It is unfortunate that the ledger prior to January 1, 1883, is missing, as it would throw considerable light on the subject.

Sec. 3—Stock Speculations.

The original capital stock of the North Chicago Street Railroad Company was $5,000,000 subscribed for as follows:

United States Construction Company	49,990 shares
C. T. Yerkes	2 shares
Hiram Crawford	2 shares
Andrew Crawford	2 shares
Wm. D. Meeker	2 shares
W. L. Elkins	2 shares
Total	50,000 shares

This stock was paid for entirely by the United States Construction Company, as follows: On October 15, 1886, the board of directors passed the following resolution:

WHEREAS, the United States Construction Company has made a demand for a payment of $1,500,000 on account of the contract made between these two companies on the 24th of May, 1886; therefore be it

RESOLVED, That the said payment is hereby ordered and made payable on the 25th day of October, 1886.

On October 25, 1886, or the date mentioned, construction account is debited $1,500,000 and the above-named subscribers credited with having paid the same aggregate amount, or 30 per cent. of their subscriptions. On January 10, 1887, another payment to the United States Construction Company is authorized, amounting to $1,000,000, and on January 12, 1887, another credit amounting to 20 per cent. is given on the above subscriptions. On April 11, 1887, another payment of $1,250,000 is ordered made to the United States Construction Company, and, on the same day, 25 per cent. of the stock subscription is credited to the subscribers.

In the meantime, the United States Construction Company had undertaken a new contract for $750,000, that of January 12, 1887,

fully explained elsewhere, and on August 23, 1887, received the first payment thereon on account, the funds with which to make the payment being the proceeds of three notes negotiated as follows:

August 15, 1887, Commercial Natonal Bank	$250,000
August 23, 1887, Illinois Trust & Savings Bank	150,000
August 23, 1887, C. T. Yerkes	100,000
Total	$500,000

On November 18, 1887, another payment of $500,000 was ordered made to the United States Construction Company on account of the original cable contract of May 24, 1886, and on November 21, 1887, the last two payments, aggregating $1,000,000, were credited on the above subscriptions, completing all except $250,000 due the United States Construction Company, which last amount was paid February 27, 1888, by a final resolution of the board of directors authorizing the payment of a like sum to the Construction company in final settlement of the contract of May 24, 1886.

It will be noticed that prior to January 12, 1887, only 30% had been paid on account of the capital stock and that half of the total amount due remained to be paid after that date; nevertheless it would seem that the stock had already been delivered to the United States Construction Company, for, on January 12, 1887, when the second payment ($1,000,000) is credited to the United States Construction Company on account of its subscription, making a total of $2,500,000, a dividend of 2½ per cent. on $3,000,000, or $75,000, was paid to George D. Widener, Treasurer of the United States Construction Company. Considering that only $1,500,000 had been with the company from October 25, 1886, to the date of the dividend, or January 12, 1887, 2 months and 17 days, the dividend was actually at the rate of 24 per cent. per annum on the sum paid in.

The dividend referred to was the first one declared by the North Chicago Street Railroad Company and amounted in the aggregate to $125,000, or 2½ per cent. on the entire capital stock of the company. Another dividend of 2½ per cent. was declared June 22, 1887, and one of 3 per cent., or $150,000, was declared December 22, 1887, all before the capital stock was fully paid for, and, presumably, before any of it had been delivered to the subscribers.

Particular attention is called to the fact that it was not until June 15, 1888, that there was any distribution of the $500,000 in stock of the new company among the stockholders of the old company, and such may have been the case; nevertheless, I find that the first dividend paid by the new company, that of January, 1887, was distributed as follows:

	Dividends.	Being 2½ per cent. on
Jan. 11, 1887, C. L. Hutchinson	$500.00	$20,000
Jan. 12, 1887, Geo. D. Widener, Treas. U. S. Con. Co.	75,000.00	3,000,000
Jan. 14, 1887, Chas. H. Ferry, Trustee	37.50	1,500
Jan. 14, 1887, C. A. Spring, Jr	50.00	2,000
Jan. 15, 1887, Chas. B. King	150.00	6,000
Jan. 15, 1887, Andrew Nelson	120.00	4,800
Jan. 15, 1887, Geo. E. Adams	170.00	6,800
Jan. 15, 1887, Adele F. Adams	67.50	2,700
Jan. 15, 1887, Nancey S. Foster	250.00	10,000
Jan. 15, 1887, Julia F. Porter	125.00	5,000
Jan. 15, 1887, S. M. James	250.00	10,000
Jan. 15, 1887, T. S. Phillips	125.00	5,000
Jan. 15, 1887, Mary H. Jones	125.00	5,000
Jan. 15, 1887, Wm. N. Phillips	125.00	5,000
Jan. 15, 1887, Mrs. Annie G. Moore	125.00	5,000
Jan. 17, 1887, Eliza V. Rumsey	5.00	200
Jan. 17, 1887, M. F. Blair, Chauncy J. Blair, Cyrus H. Adams, Trustees	252.50	10,000
Jan. 18, 1887, Lorenzo G. Woodhouse	62.50	2,500
Jan. 20, 1887, I. N. Maynard	90.00	3,600
Jan. 22, 1887, Mrs. R. McM. Gillespie	215.00	12,600
Jan. 25, 1887, Mrs. Sarah Morris	37.50	1,500
Jan. 26, 1887, Edward Waller	112.50	4,500
Jan. 27, 1887, Chas. T. Yerkes	80.00	3,200
Jan. 27, 1887, Hiram Crawford	12.50	500
Jan. 27, 1887, Robt. Macfeely	137.50	5,500
Feb. 1, 1887, E. M. Mayo	125.00	5,000
Feb. 1, 1887, Clara C. Hollis	62.50	2,500
Feb. 5, 1887, P. A. B. Widener	190.00	7,600
Feb. 5, 1887, W. L. Elkins	192.50	7,700
Feb. 5, 1887, Geo. D. Widener, Treas.	1,230.00	49,200
Feb, 25, 1887, W. R. Willing	77.50	3,100
Mch. 12, 1887, J. J. Mitchell, Pres	250.00	10,000
Mch. 15, 1887, S. B. Cobb	50.00	2,000
Mch. 19, 1887, Thos. Howard	250.00	10,000
Mch. 23, 1887, Chas. H. Ferry	17.50	700
Mch, 23, 1887, Mary A. W. Ferry	30.00	1,200
Apr. 15, 1887, Robt. Glendening	125.00	5,000
Apr. 30, 1887, P. A. B. Widener	2,085.00	83,400
Apr. 30, 1887, W. L. Elkins	2,085.00	83,400
Apr. 30, 1887, C. T. Yerkes	2,082.50	83,300
May 2, 1887, U. S. Construction Co	37,500.00	1,500,000
May 27, 1887, Mary A. W. Ferry, Trustee	25.00	1,000
July 1, 1887, W. C. Goudy	5.00	200
July 1, 1887, Jno. Doe	217.50	8,700
July 1, 1887, Clara F. Bass	67.50	2,700
July 1, 1887, L. M. Ferry	7.50	300
Totals	$125,000.00	$5,000,000

As before stated, there is no record that any of the capital stock was distributed among the stockholders of the old company until June 15, 1888, and it may be merely a coincidence that 22 out of the 46 names in the above list were stockholders in the old company, and held just one-half the number of shares in the old company that they are credited with above; nevertheless, the fact that these names appear at all among the stockholders of the new company and receiving dividends before the stock was fully paid for, and all payments being made credited to other persons, would indicate, at least, that the stock had been issued prematurely, and was being trafficked in before the United States Construction Company had a clear paid-up title to it.

The issue of the stock to the United States Construction Company before being earned by the North Chicago Street Railroad may likewise have a very important bearing in deciding the question as to whether or not the same thing was done on the West Chicago Street Railroad Company, as may be inferred from a consideration of that subject elsewhere in this report.

Sec. 4.—Total Expenditures.

The total expenditures of this company from May 24, 1886, to December 31, 1897, outside of operating expenses, were $16,797,520.97, divided as follows:

For betterments on account North Chicago City Ry. Co.....	$7,922,331.89
For 2,501 shares of stock North Chicago City Ry. Co.....	1,500,600.00
Bonus paid to shareholders North Chicago City Ry. Co.....	500,000.00
Total on account of North Chicago City Ry. Co.....	$9,922,931.89
Balance on its own account.....	6,874,589.08
Total	$16,797,520.97

The details of its expenditures on its own account are as follows:

10.713 miles S. T. new horse road at.....	$22,478.26	$240.809.60
10.713 miles S. T. new horse road converted into electric road at.....	14,428.15	154,567.67
12.014 miles S. T. new electric road at.....	20,311.13	244,017.92
Buildings		448,463.77
Land		199,958.20
Equipment		836,651.65
Car machinery (on hand Dec. 31, 1897).....		13,021.19
Grip car tools, "		1,068.87
Stationary registers, "		12,590.84

Horses,	"	.....	9,820.02
Supplies,	"	.....	32,920.81
Bonds,	"	.....	1,399,650.00
Stocks,	"	.....	10,500.00
Bills receivable,	"	.....	1,897,400.00
Accounts receivable,	"	.....	221,520.61
Cash and cash items,	"	.....	554,225.16
Suspense,	"	.....	22,092.58
Railway expenses to Dec. 31, 1897		.....	250,099.41
Miscellaneous items charged into construction account:			
Car Heaters		8,373.78	
Building repairs		758.44	
Car repairs		3,800.00	
Wagon for Fire Apparatus		160.00	
Gas and Water Rent		531.28	
Water Pipe		67.79	
Patent Cases		875.00	
Love Traction Co		7,656.27	
Discount on Bonds		35,315.00	
Frontage		10,679.35	
City Inspection		1,338.75	
Hose Bridge and Lift		456.10	
Garfield Barn fire		8,036.63	
Contributions		2,000.00	
Chicago Times		144.00	
Printing		29.81	
Legal Expenses		2,257.06	
Electric light		52.80	
Gas pipe line		4,260.93	
Wells Street improvements		1,980.76	
Horse depreciation		80,000.00	
Corn depreciation		6,437.03	
Loan to Garden City Construction Co		150,000.00	325,210.78
Total			$6,874,589.08

The details of the disbursements for buildings were as follows:

Hobbie St. electric power house, at Hawthorne Ave. and Hobbie St.	$377,480.80
High Ridge car house, at N. Clark St., near Homan Ave.	6,363.38
Halsted St. car barn, at Lincoln Ave., near Halsted St.	16,351.68
La Salle Ave. station	7,857.59
Graceland Ave. car house	28,675.87
Sheffield Ave. machine shops	6,041.60
Lincoln and Sheffield Ave. waiting room	5,692.85
Total	$448,463.77

The pieces of land purchased by the company between May 24, 1886, and December 31, 1897, were (1) site of Hobbie Street power house, (2) site of Halsted Street barn, (3) site of machine shop on Sheffield Avenue north of Fullerton Avenue. These pieces are represented by the item, "Land, $199,958.20," in the above schedule. The company has purchased other pieces of land, but the sum paid in each case is carried in the cash balance of $554,225.16 as a cash item on hand December 31, 1897. The pieces

referred to are: Site High Ridge car house; one lot, Larrabee Street; site Graceland Avenue car house, Graceland and Southport; 386 and 390 Dearborn Avenue; Belleplaine and Lincoln Avenues; loop, Sheffield and Lincoln avenues.

In converting the 10.713 miles single track horse road into electric road, the old street pavement then down, being practically new, was relaid. The original cost value of this pavement was $63,024.36 and is incorporated into the total cost value of the existing *22.727* miles single track electric road now owned by the N. C. S. R. R. Co. The detailed cost of this section of road (*22.727* miles) is as follows:

		Per Mile.
Overhead and underground electrical construction.....	$170,435.81	$7,499.31
Paving	133,702.51	5,882.98
Rails, 85 lbs.....	95,323.63	4,194.29
Miscellaneous material and labor.....	62,148.00	2,734.55
Totals	$461,609.95	$20,311.13

The distribution of the cost of paving was as follows:

Granite,	18,956.36 Sq. yards, at $2.00.....		$37,912.72
Wood,	55,386.44 Sq. yards, at 1.00.....		55,386.44
Cobble,	32,322.52 Sq. yards, at 1.25.....		40,403.35
Totals...106,665.32			$133,702.51

Sec. 5.—Original Cost of Present Assets.

The cost value of the property owned by the North Chicago Street Railroad Company and existing on December 31, 1897, was as follows:

22.727 miles S. T. electric road, at $20,311.13.....			$461,609.95
Real estate.....			199,958.20
Buildings			448,463.77
Equipment:			
182 Box cars, at.....	$900	$163,800	
39 Box cars, at.....	700	27,300	
4 Box cars, at.....	500	2,000	
222 Open cars, at.....	725	80,475	
64 Open cars, at.....	500	32,000	
73 Grip cars, at.....	650	47,450	
141 Box motor cars, at.....	1,000	141,000	
130 Open motor cars, at.....	825	107,250	
3 Mail motor cars, at.....	900	2,700	
16 Sweepers, at.....	300	4,800	
11 Snow plows, at.....	400	4,400	
12 Salters, at	200	2,400	
6 Sprinklers, at.....	250	1,500	
29 Other vehicles, at.....	300	8,700	
			625,775.00

Car machinery		13,021.19
Grip car tools		1,068.87
Stationary registers		12,590.84
Horses		9,820.02
Storehouse supplies		32,920.81
Wagon for fire apparatus		160.00
Due from Garden City Construction Co		150,000.00
Cash and cash items		554,225.16
Bonds:		
N. Chi. City Ry. 4½ per cent	$110,000	
N. Chi. St. R. R. 5 per cent	10,000	
N. Chi. St. R. R. debentures	532,900	
Chi. Passenger Ry. Co	714,000	
First Regiment	2,000	
Dubuque Building	4,750	
Times-Herald	25,000	
Garfield Building	1,000	
		1,399,650.00
Stocks:		
Ferris Wheel	$10,000	
N. Chi. St. R. R.	500	
		10,500.00
Bills Receivable:		
W. P. Nixon, 12/19/91	6,300	
J. J. West, 2/14/89	16,000	
Chas. Henrotin, 4/9/92	40,000	
Ed. Koch, 10/29/92	15,000	
Electric Park Am. Co., 5/7/96	50,000	
Columbian Const'n Co., 3/9/97	50,000	
J. R. Bickerdike, 7/29/97	10,000	
West Chi. St. R. R., 8/31/97	25,000	
" " 11/10/97	100,000	
" " 12/10/97	10,000	
" " 12/10/97	10,000	
" " 12/10/97	15,000	
" " 11/15/97	50,000	
West Chi. St. R. R. Tunnel Co	1,500,000	
		1,897,400.00
Accounts receivable		221,520.61
Suspense		22,092.58
Total		$6,060,777.00

showing a depreciation of $813,912.08, to which should be added $500,000 paid to the stockholders of the North Chicago City Railway Company, and the $1,500,600 paid for the 2,501 shares of stock of the same company, since it is shown elsewhere that the property of that company on December 31, 1897, was only $2,109,399.13 in excess of its outstanding bonds, and which excess is not sufficient to secure the claim of the North Chicago Street Railway Company for $7,922,331.89. The stock, therefore, in case of a termination of the lease and settlement between the companies

according to the express terms of the lease, has no secured value.

Adding the amount collectible from the lessor company ($2,109,399.13) to the cost value of the other property of the lessee company ($6,060.777.00) makes the total assets of the lessor company $8,170,176.13.

Sec. 6.—Present Liabilities.

Against this there are outstanding liabilities as follows:

First mortgage 5 per cent. bonds	$3,171,000.00
Debenture bonds, 6 per cent	1,260,000.00
Certificates of indebtedness, 6 per cent	500,000.00
Real estate mortgage (assumed)	15,000.00
Bills payable	2,370,200.00
Conductors' and drivers' deposits	22,274.00
Employes' deposits	42,209.00
Dividends unpaid	325.00
Wages unpaid	125.22
Coupons unpaid	15,515.00
Accounts payable	10,946.86
Total	$7,407,595.08

leaving $762,581.05 to secure the $6,600,000 outstanding capital stock of the company.

Sec. 7.—Stock, Bonds and Dividends.

The capital stock of this company was originally $5,000,000, and the first issue of bonds $1,500,000. The circumstances in regard to the issue and disposition of these particular securities have already been fully set forth on a preceding page.

The mortgage under which the bonds were issued provides that additional bonds may be issued from time to time for new construction, but only to the extent of 75 per cent. of the actual cost of the new construction. Under this provision $227,000 new bonds were issued in 1887, $100,000 in 1888, $523,000 in 1889, $63,000 in 1890 and $758,000 in 1896, a total of $3,171,000, including the original issue of $1,500,000. These bonds are dated July 1, 1886, mature January 1, 1906, and bear 5 per cent. interest.

By resolution of the board of directors December 8, 1890, there were issued on January 21, 1891, $500,000 debentures maturing January 1, 1911, and bearing 6 per cent. interest. Additional debentures were issued in '95 and '96, maturing January 1, 1915, and bearing 6 per cent. interest, amounting in the aggregate to $1,260,000.

The first lot, $500,000, issued in 1895, was used as collateral security for loans to the company. On January 15, 1896, another lot, $210,000, was authorized by the board of directors, but not for immediate issue. They were "to be held until officers think proper to use same in interests of company." Another lot, $550,000, was authorized December 28, 1895.

The first lot, issued in 1895, was subsequently redeemed and was on hand, in the vault, January 1, 1898. Of the $210,000 lot, $177,100 were sold, the remainder, $32,900, being also on hand January 1, 1898. The $550,000 lot was given to the stockholders as a dividend in 1896, together with $550,000 new stock.

Prior to that date, or on January 21, 1893, the first increase in the capital stock was authorized, being for $500,000. This stock was sold to the old stockholders as of record February 23, 1893, at par. The market value of the new stock immediately after its issue was $286 per share. Its issue at par under the circumstances was therefore equivalent to an extra dividend of 18 6-10 per cent. to the old stockholders on the $5,000,000 capital already outstanding.

On December 28, 1895, another increase in the capital stock was authorized, this time for $1,100,000. At the same meeting an extra dividend of 20 per cent., payable half in new stock and half in debentures maturing in 1915, was declared. The remaining $550,000 new stock authorized was sold to stockholders of record January 6, 1896, at par. Immediately after the issue of the new stock its market value was quoted on the Chicago Stock Exchange at $238 per share bid.

The premium on the $550,000 new stock sold, the market value of the $550,000 given to the old stockholders, and the $550,000 debentures at par made a total extra dividend of 47 6-10 per cent. on the $5,500,000 stock then outstanding.

The total of the extra dividends above referred to was $3,548,000. The total of the regular dividends paid to stockholders of the North Chicago Street Railroad Company was $5,764,253.50. The dividends from May 24, 1886, to December 31, 1892, both regular and extra, averaged 6.86 per cent per annum. From January 1, 1893, to December 31, 1897, they averaged 25.24 per cent per annum, including the bonuses on new stock issued at par.

Under the terms of the lease of May 24, 1886, a guaranteed dividend of 30 per cent. per annum has been paid on the $249.900 outstanding stock of the North Chicago City Railway Company. The first payment of this character was made July 1, 1886, and quarterly thereafter. The total to December 31, 1897, is $822,670.

The aggregate profit received by the stockholders of both companies from May 24, 1886, to December 31, 1897, is $10,-134,923.50.

The total assets of both companies on December 31, 1897, were $17,339,508.02, and the total liabilities, exclusive of capital stock, $16,576,926.97, leaving net assets of only $762,581.05 to represent $7,100,000 capital stock.

Upon this small surplus, dividends, amounting to $866,913, were paid in 1897, being at the rate of 113.68 per cent. per annum.

The bonded and mortgage debt of the companies was $7,943,-000, upon which the annual interest charge is $407,415, as follows:

North Chi. City Ry	$500,000,	at 6%	$30,000
North Chi. City Ry	2,497,000,	at 4½%	112,365
North Chi. St. R. R.	3,171,000,	at 5%	158,550
North Chi. St. R. R.	1,775,000,	at 6%	106,500
Totals	$7,943,000,	at 5.13%	$407,415

The North Chicago Street Railroad Company has also outstanding $2,434,683 other interest bearing debt, but the interest paid by the company on this debt is more than offset by the interest received on $3,307,550 interest earning securities owned by the company. As the interest thus received is credited to the same account as that to which the interest paid out is charged, the net balance of this account only appears in the annual statements as a charge against the earnings.

The net balance for 1897 was $196,824.52, which is at the rate of 10.9 per cent. per annum on the proceeds of bonds actually invested in the plant of the company. For example, the total assets of the company on December 31, 1897, were $8,170,176.13, of which $554,225.16 was cash and cash items, $5,810,562.32 bonds, stocks, notes and open accounts, and the balance ($1,805,388.65) plant, or track, real estate, buildings and equipment used in the operation of the road. These assets represent the proceeds of $4,931,000 bonds, $2,449,683 miscellaneous interest bearing debt, and $789,493.13 non-interest debt.

As the cost-value of the plant represents only $1,805,388.65 of the total capital employed, it follows that the net interest of $196,824.52 paid out in 1897 is for the use of only that portion of the capital, and that income derived from the investment of the remaining capital should at least set off the interest paid out for its use. This, it will be seen, is practically the case when the cost of the plants of both the lessee and the lessor companies are considered jointly.

The capital represented by the joint plants is $6,422,298.12 and the total net interest paid out in 1897 was $337,895.61, or 5.26 per cent. on the cost value of the plants. By reference to the schedule on a preceding page, showing the interest rate of the bonds outstanding, it will be seen that the average is 5.13 per cent. per annum, or very nearly the same as the rate actually paid for the use of the capital invested in the plants.

The net income from the operation of the plants in 1897, after the payment of all expenses, including the interest charges above referred to, was $1,118,026.99, or 17.41 per cent. on the cost value of the plants. The gross earnings were $2,836,522.41, or 44.17 per cent. on the cost value of the plant.

Sec. 8.—Mileage of North Side Lines.

The mileage of the North Chicago City Railway Company and the North Chicago Street Railroad Company is summarized as follows:

	Miles S. T.
NORTH CHICAGO CITY RAILWAY.	
Original horse road at date of lease, May 24, 1886	44.774
New horse road, built since May 24, 1886	23.067
New cable road, built since May 24, 1886	1.862
New electric road, built since May 24, 1886	3.626
NORTH CHICAGO STREET RAILROAD.	
New horse road, built since lease of May 24, 1886	10.713
New electric, built since May 24, 1886	12.014
Total	96.056

Changes made in the above roads since their construction are as follows:

NORTH CHICAGO CITY RAILWAY.	
Original road as it existed on May 24, 1886, afterward converted into cable road	16.448

Original road as it existed on May 24, 1886, and afterward converted into electric road	28.173
Original horse road still remaining on December 31, 1897	0.153
New horse road, built since lease of May 24, 1886, afterward converted into electric road	22.280
New horse road, built since lease of May 24, 1886, and still remaining as horse road on Dec. 31, 1897	0.787
Total changes in road	67.841
Add new extensions since May 24, 1886.	
Cable road	1.862
Electric road	3.626
Present mileage (Dec. 31, 1897)	73.329

NORTH CHICAGO STREET RAILROAD.

Original horse road built by lessee company, afterward converted into electric road	10.713
Add extensions electric road	12.014
Total extensions and present mileage	22.727

RECAPITULATION.

North Chicago City Ry., present mileage	73.329
North Chicago St. R. R., present mileage	22.727
Total	96.056

distributed as follows:

	Lineal Feet.	Feet, Single Track.	Miles S.T.
Cable road	50,521	96,678	18.310
Electric road	211,916.95	405,521.2	76.806
Horse road	3,570.5	4,960.9	0.940
	266,008.45	507,160.1	96.056

EXHIBIT IV.—CHICAGO PASSENGER RAILWAY CO.

Sec. 1.—Agreements with W. C. S. R. R. Co.

This company was incorporated February 12, 1883. At the time of the lease of the Chicago West Division Railway Co., October 20, 1887, its outstanding capital stock was $1,000,000, divided into 10,000 shares of $100 each, 7,300 of which were owned by the Chicago West Division Railway Co. These shares cost the Chicago West Division Ry. Co. $850,850, or $116.83 per share, and

were conveyed to the West Chicago Street Railroad Co. under the lease of October 20, 1887. There were also outstanding at the time of the lease $400,000, 6 per cent. bonds.

The mileage of the road on October 20, 1887, consisted of 29.79 miles of single track horse railroad.

On November 16, 1888, this company entered into an agreement with the West Chicago St. R. R. Co. for the mutual use of each other's tracks. Among other stipulations being the following, viz.:

The Chicago Passenger Ry. Co. to construct a double-track cable railroad on Desplaines St. between Washington St. and Austin Ave.; on Washington St. from Desplaines St. through the Washington St. tunnel to Franklin St.; single track on Franklin St. to Madison St. from Washington St., and single track on Washington St. from State St. to Franklin St.

West Chicago St. R. R. Co. to use the above named tracks in common with the Chicago Passenger Ry. Co., and as consideration to pay to the Chicago Passenger Ry. Co. the entire cost of the construction and also 5 per cent. per annum upon the amount which shall be paid out by the Chicago Passenger Ry. Co. in rebuilding and repaving the Washington St. tunnel.

West Chicago St. R. R. Co. to provide for the traction of the cars of the Chicago Passenger Ry. Co. through the tunnel and around the loop and charge therefor a reasonable sum to be agreed upon.

The contract to continue for 50 years. But on March 15, 1889, this contract was amended as follows:

The West Chicago St. R. R. Co. stipulates to construct the cable roads mentioned with the exception that the double track on Desplaines St. shall be from Washington St. to Milwaukee Ave. instead of to Austin Ave. The cost and expense of construction of tracks, excepting the cable tracks covered by said agreement of November 16, 1888, as herein modified, and the cost and expense of all the permanent improvements and extensions provided for in this agreement, shall be paid for in the following manner:

The said Passenger Ry. Co. shall issue its bonds, interest not to exceed 6 per cent., to an amount sufficient to fund the floating indebtedness of said Passenger Ry. Co., and to pay for the im-

provements which said Passenger Ry. Co. has constructed to make or is under obligation to make, and also such bonds as it shall be necessary to issue to pay for any construction, permanent improvements or extensions, which shall be made for said Passenger Ry. Co. by said Street Railroad Co. under this agreement, and from the proceeds of the sale of said bonds the Passenger Ry. Co. shall fund all its floating indebtedness and also pay the Street Railroad Co. for all construction, permanent improvements or extensions, saving the construction of cable tracks specified in said agreement of November 16, 1888.

The agreement of November 16, 1888, was also modified to release the Chicago Passenger Ry. Co. from the obligation to pay for the traction of its cars and also to release the West Chicago St. R. R. Co. from the payment of 5 per cent. per annum of the cost to rebuild and repair the Washington St. tunnel, because the Chicago Passenger Ry. Co. was to pay for the improvements by the issue of its bonds and the West Chicago St. R. R. was to guarantee the interest on the same.

In consideration for these modifications the West Chicago St. R. R. Co. stipulates to pay the Chicago Passenger Ry. Co. $25,000 semi-annually, being 5 per cent. on the outstanding capital stock.

The agreement also stipulated that the West Chicago St. R. R. Co. was to receive the gross receipts and pay all the operating expenses of the Chicago Passenger Ry. Co. from March 15, 1889.

Sec. 2.—Operations under Agreements.

On June 8, 1889, the Chicago Passenger Ry. Co. decided to issue $1,000,000 6 per cent. consolidated mortgage bonds, $400,000 to be set aside to redeem the 1st mortgage bonds for the same amount then outstanding. The balance was disposed of, but in what manner I have been unable to learn, except that part were sold by the West Chicago St. R. R. Co. and the proceeds, $70,309.75, applied in part payment of $104,737.66 due the West Chicago St. R. R. Co. for betterments down to December 31, 1894, the balance ($34,426.91) being carried forward until May 9, 1896, when, with other accumulations on account of betterments, another settlement was made by arbitration, referred to more particularly further on.

On July 1, 1890, both the Chicago West Division Ry. Co. and the West Chicago St. R. R. Co. "relinquished all control and direction of the 7,300 shares of stock of the Chicago Passenger Ry. Co., leaving the same in the hands of trustees for the use and benefit of the stockholders of this company, so far as their interests may appear, as individuals, etc.," and on July 14, 1890, Mr. Yerkes was "requested to accept the trust hereby created."

These were the 7,300 shares specifically included in the schedule of property to be turned over to the West Chicago St. R. R. Co. at the time of its lease of the Chicago West Division Ry. Co. as part of the property of the last named company.[1]

On May 14, 1888, the president of the West Chicago St. R. R. Co. was authorized to guarantee all contracts which may be made by the Chicago Passenger Ry. Co. with the U. S. Construction Co. I have not been able to learn to what this refers unless to the construction of the original cable system on such streets as the Chicago Passenger Ry. Co. and not the West Chicago St. R. R. Co. was specifically authorized by ordinance to use.

The joint agreement of November 16, 1888, specifically requires the Chicago Passenger Ry. Co. to construct the cable system on Desplaines St., Washington St. and through the Washington St. tunnel, etc., etc., but provides that the West Chicago St. R. R. Co. shall pay the entire cost.

The amended agreement of March 15, 1889, confirms this stipulation but also recites that the Chicago Passenger Ry. Co. shall issue its bonds "to pay for the improvements which said Passenger Ry. has contracted to make *or is under obligation to make, and also* such bonds as it shall be necessary to issue to pay for any construction, permanent improvements or extensions which shall be made for said Passenger Ry. Co. by said Street R. R. under this agreement."

Not having been able to gain access to the books of the Chicago Passenger Ry. Co. or of the U. S. Construction Co., I am

[1] As a matter of fact, they never were actually in possession of the West Chicago St. R. R. Co., having been, by express resolution of the Board of Directors of that company on November 29, 1887, delivered direct to Mr. Yerkes by the Chicago West Division Ry. Co.—at least 7,270 shares were so delivered, the remaining 30 shares being delivered "to such person or persons as Mr. Yerkes may name." On December 14, 1887, it was, however, decided that Mr. Yerkes should hold the entire 7,300 shares.

unable to state what, if any, improvements were made to the property of the former company independent of such as were made by the West Chicago St. R. R. Co. and appear on the books of the latter company, but some obligation of that character seems to be referred to in the joint agreement.

On February 26, 1892, the Chicago Passenger Ry. Co. purchased Lot 7, B. 47, Original Town of Chicago, with improvements thereon, from C. T. Yerkes and J. B. Parsons for $100,000, which sum was paid over to the West Chicago St. R. R. Co., and that company assumed the mortgage of $10,000, which then existed on the property. A lease of this property for 99 years had previously been secured by the West Chicago St. R. R. Co.

On March 19, 1896, the directors of the Chicago Passenger Ry. Co. and the West Chicago St. R. R. Co. were unable to come to an agreement as to the amount due the former for betterments made on account of the latter Company, and decided to refer the matter to Geo. A. Yuille and M. C. McDonald as arbitrators. On May 9, 1896, the arbitrators reported the amount due $789,990.07, as follows:

12th St., East of California Ave.	$48,650.39
East Harrison St.	2,950.40
Electrical construction	197,484.33
Track and paving	194,495.45
Cable and conduits	96,409.50
Proportion of Western Ave. power house	250,000.00
Total	$789,990.07

All these improvements were made between January 1, 1896, and the date of the report, and were therefore of an electrical character.

Sec. 3.—Stock and Bond Issues.

In the anticipation of this settlement the directors of the Chicago Passenger Ry. Co. had, on March 3, 1896, voted to increase the capital stock from $1,000,000 to $2,000,000, and on April 8, 1896, the two companies entered into an agreement that if the Chicago Passenger Ry. Co. would sell the new stock and apply the proceeds, so far as necessary, towards reimbursing the West Chicago St. R. R. Co. for the above disbursements, then the latter company would undertake to pay to said Chicago Passenger Ry. Co., or to distribute the same among the respective shareholders of said increased capital stock, $25,000 on the 15th day of

September, 1896, and semi-annually thereafter on the 15th days of March and September of each and every year a like amount of $25,000, payments to continue for the same period as payments of a like amount and for the same purpose mentioned in the amended agreement of March 15, 1889, the purpose being to guarantee a uniform annual dividend of 5 per cent. on the entire issue of $2,000,000, including the new issue of $1,000,000, of capital stock of the Chicago Passenger Ry. Co.

The West Chicago St. R. R. Co. undertook to float the new stock, but notwithstanding the guaranteed 5 per cent. dividend there was apparently no market for it, only 1,163 shares being disposed of at seventy-five cents on the dollar, or for an aggregate of $87,225 cash.

This apparently lead the directors of the Chicago Passenger Ry. Co. to decide upon the issue of more bonds with which to pay their debt to the West Chicago St. R. R. Co., for on March 29, 1897, a new Consolidated mortgage for $2,000,000, bearing 5 per cent. interest, was authorized, $400,000 being set aside to retire the outstanding 1st mortgage 6 per cent. bonds for the same amount, and $600,000 being set aside to retire the outstanding 6 per cent. consolidated mortgage bonds of June 8, 1889. Of the remaining bonds, $734,000 was paid over to the West Chicago St. R. R. Co. as a partial settlement of the claim of the latter company under the award of the arbitrators of May 9, 1896.

As before stated, only $70,309.75 of the proceeds of the $600,000 6 per cent. consolidated mortgage bonds of June 8, 1889, were received by the West Chicago St. R. R. Co. In what way the balance was disposed of I am unable to say, except that $100,000 was paid for Lot 7, Block 47, Original Town of Chicago, as before stated, although the amended agreement of March 15, 1889, required that "the said Passenger Ry. shall issue its bonds, interest not to exceed 6 per cent., to an amount sufficient to fund the floating indebtedness of said Passenger Ry. Co., etc.," which would seem to indicate the manner in which the bonds were disposed of, although it is very probable that some of them were used to divide the accumulated surplus of the company among the old stockholders at the date of the agreement of March 15, 1889, as was done in the case of the Chicago West Division Ry. Co. at the time of its lease to the West Chicago St. R. R. Co.

The company experienced the same difficulty in substituting its $600,000 5 per cent. bonds for the outstanding 6 per cent. bonds for the same amount as in floating the new stock, and was obliged to issue $224,000 of the new stock as a bonus to secure the retirement of the old 6 per cent. consolidated bonds.

On April 12, 1897, the directors of the West Chicago St. R. R. Co. passed a resolution guaranteeing the principal and interest of the $2,000,000 5 per cent. consolidated bonds of the Chicago Passenger Ry. Co. of the issue of March 29, 1897, and on the same date, by mutual agreement, the term of the lease of March 15, 1889, was extended 50 years from March 14, 1904, making the full term 65 years.

Sec. 4.—Original Cost of Assets.

As the books of that company are inaccessible, the actual cost of construction is likewise unobtainable, but the approximate cost may be obtained in connection with the outstanding capital stock and bonds of the company on November 16, 1888, which were: Capital stock, $1,000,000; 1st mortgage bonds, $400,000; total, $1,400,000.

After the lease of this road by the West Chicago Street R. R. Co., the latter company built 4.40 miles of additional single track horse railroad at a cost of $104,737.66, or $23,825.68 per mile. At the same rate per mile the cost of 29.79 miles would be $709,767.01, which would leave $690,232.99, less $29,030, for 37 horse-cars known to have been turned over to the West Chicago St. R. R. Co., to represent the other property turned over under the lease, including the real estate and buildings.

During 1888 and 1889, 3.15 miles of the original mileage were converted into cable road, the estimated cost of which is given elsewhere, 0.075 miles were transferred to the Chicago City Ry. Co. and 28.585 miles, including the 4.40 miles built by the West Chicago St. R. R. Co., were converted into electric road.

There remains of the original horse railroad 2.38 miles, representing a cost value of $56,705.12, or $23,825.68 per mile.

The cost to convert the 28.585 miles of horse railroad into electric road was as follows:

2.01 miles at $24,204.17 per mile	$48,650.39
26.575 miles at $18,573.46 per mile	493,589.68
Total	$542,240.07

The track and paving of 26.575 miles cost at $7,318.75 per mile[1]..... 194,495.45
Electrical construction 26.575 miles at $7,431.21 per mile..... 197,484.33
Cable and conduits, 28.585 miles at $3,372.76 per mile..... 96,409.50
Miscellaneous, 26.575 miles at $195.87 per mile..... 5,200.40

Proportionate cost of Western Ave. power house was $250,000, or $8,745.85 per mile, for 28.585 miles of single track.

The total cost of the Western Ave. power house was $520,455.65. The proportion charged to the Chicago Passenger Ry. Co. ($250,000) was the amount agreed upon by the arbitrators in their report of May 9, 1896. This amount seems too high for the following reasons:

The total mileage of electric roads on the West Side is 173.73 miles single track, including the 28.585 miles of Chicago Passenger Ry. single track referred to above. The mileage on the North Side is 147.07 single track. The total mileage of all three roads is 320.8 miles single track.

The power to operate these roads is obtained from three different power houses, viz: Western Ave., California Ave. and Hawthorne Ave., but without respect to the particular company to whom the power houses belong, the California Ave. power house, for example, furnishing power to the North and West Side lines as well as to the Chicago Electric Transit Co., to which company it belongs. On the other hand, the power houses at Western Ave. on the West Side and Hawthorne Ave. on the North Side supply power to other roads, the total mileage supplied altogether by these two power houses being greater than the combined mileage of the North Chicago St. R. R. Co. and the West Chicago St. R. R. Co., including that of the Chicago Passenger Ry. and Chicago West Division Ry. companies, to-wit: 320.8 miles single track.

The cost of Western Ave. power house, exclusive of the land on which it is built, which was formerly the site of the car shops of the Chicago West Division Ry. Co., and conveyed to the West Chicago St. R. R. Co. under the lease of October 20, 1887, was $520,455.65, as heretofore stated, $155,535.55 for the building and $364,920 for the machinery. The cost of the Hawthorne Ave. power house, including the land and machinery, was $377,480.80. Total for both $897,936.45, or $2,800 per mile. Even if an estimate of $150,000 is placed upon the 126.4x2,219.6 ft. of land upon which the Western Ave. power house stands and added to the total cost the cost per mile of electric single track is not increased $500, so that the first cost of $8,745.85 per mile for 28.585 miles of single track given above is, therefore, unreliable as a basis for computing the cost per mile, as it seems entirely out of proportion to the total mileage operated.

Of the original $814,504.67 first cost of the 29.79 miles single track horse railroad existing at the time of the lease and of the

---

[1] The lineal feet of street covered by the 28.585 miles of track is 64,627 feet and the square yards of street paving amount to 114,892.4, divided as follows: Granite, 15,194.7; cedar, 11,946.6; oak, 11,164.4; cobble, 76,586.7.

The average cost per square yard, new, has been: Granite, $2; cedar, $1; oak, $2, and cobble, $1.25.

Exactly how many square yards of new paving is represented in the item of $194,495.45 for track and paving, I am unable to state, but if the 114,892.4 square yards of street were laid new and at the rates named the total cost would have been $217,828, or at the rate of $17,796.41 per lineal mile.

4.40 miles built subsequently, there remains 2.38 miles, which cost $56,705.12, leaving $757,799.55 to represent depreciation in cost value because of the subsequent charge to to construction account of the cost to construct and entirely distinct and different kind of road in its place, all of the cost of the old road being properly chargeable to profit and loss.

Of the 3.15 miles of single-track horse railroad converted into cable road, all but 0.314 of a mile, forming part of the State St. loop extension, was reconstructed by the U. S. Construction Co., and the whole was to be paid for, under the lease, by the West Chicago St. R. R. Co., as part of the consideration to be paid by the lessee company. For reasons that will be apparent, however, it is necessary to consider the cost of reconstructing the 2.836 miles in connection with the cost of constructing the entire cable system.

As elsewhere stated, the cost per mile of the Blue Island Ave. and Halsted cable road was $96,455.43, and it is fair to presume, in the absence of any definite information to the contrary, that the construction having been done at very nearly the same time, the 2.856 miles was built at approximately the same cost per mile, or an aggregate of $273,547.60.

The 34.115 miles single-track railroad existing on November 31, 1897, represented, therefore, a total investment of $1,677,411,29, as follows:

2.836 miles single track cable	$273,547.60
0.314 miles single track cable	43,715.51
2.38 miles single track horse railroad	56,705.12
28.585 miles single track electric railroad	542,240.07
Real estate and buildings	761,202.99
Total	$1,677,411.29

Sec. 5.—Liabilities at Present.

Against this there was outstanding on December 31, 1897:

First mortgage 6 per cent. bonds	$400,000.00
Consolidated 5 per cent. bonds	1,334,000.00
Capital stock	1,340,300.00
Due West Chicago St. R. R.	49,158.49
Total	$3,123,458.49

showing outstanding liabilities in excess of the cost value of the property to the extent of $1,446,047.20.

A reappraisement of the real estate of this company will doubtless reduce this excess to a considerable extent, as I understand its

fair market value is greater than the oustanding bonds of the company.

EXHIBIT V.—CHICAGO WEST DIVISION RAILWAY CO.

Sec. 1.—Early Operations.

This company was incorporated February 21, 1861. On October 29, 1887, its board of directors approved a lease of the road to the West Chicago St. R. R. Co. for 999 years, the same to take effect as of October 20, 1887. The particulars of this lease will be found more fully set forth in Exhibit V.

Its capital stock on October 20, 1887, was $1,250,000, which remains the same at the date of this report. Its bonded indebtedness is $4,070,000, 1st mortgage 4½ per cent. 40-year bonds, dated July 1, 1892, which were issued by resolution of the board of directors May 28, 1892, to retire $4,040,000 certificates of indebtedness of various dates and one note for $30,000 secured by trust deed for certain real estate, all of which were outstanding at the date of the lease except as elsewhere fully set forth in this report.

The lease between this company and the West Chicago St. R. R. provides that in anticipation of the termination of the lease at any time or for any cause, and "for the purpose of preserving the necessary information for an intelligent accounting * * * an account of the cost of all permanent improvements to the property demised" shall be kept.

But such disbursements of the character mentioned as have been made since the date of the lease have not been kept distinct and separate from the disbursements of the lessee company on its account, as may be inferred from the response of the management to a former request of your committee for "the itemized cost of all buildings and equipping of new lines and extensions, whether owned or leased, etc.," the response being that "it is impossible to give statement as asked for itemized, as the construction and equipping of new lines has been charged to the general construction account, the total cost of which since the opening of the road has been $9,334,395.16."

Not only has it been necessary to analyze the general construction account of the West Chicago St. R. R. Co. for a complete list of the expenditures for permanent improvements on account of the Chicago West Division Ry Co., but a comprehensive knowledge of the acts of that company can likewise only be obtained by an examination of the corporate acts of the lessee company, those of the lessor company being practically dictated by the lessee company. For that reason reference is had to that part of this report considered under the heading "West Chicago St. R. R. Co." for any further general information concerning the Chicago West Division Ry. Co. and to Exhibit 6 for such information concerning the expenditure for permanent improvements as has been disclosed by this examination.

Sec. 2.—Financial Condition in 1887.

The mileage of this road on October 20, 1887, the date of its lease to the West Chicago St. R. R. Co., was 98.45 miles of single track, the cost of constructing which was $1,935,131.52, or $19,655.98 per mile.

This comparatively low cost at the time referred to was, I am informed, due principally to two causes: (1) it had been the practice of this company for several years prior to its lease to the West Chicago St. R. R. Co. to pay for extensions and betterments out of its surplus earnings, and (2) only two streets—Madison St. and Randolph St.—representing 14 miles out of the total 98.45 miles of single track, were paved and that mostly with cheap macadam.

The company possessed real estate and buildings, representing a cost of $449,158.73 and $927,984.00 respectively. It also owned 492 box or closed cars and 301 open cars, which cost $658,456, and 4,243 horses, for which $567,599 had been paid, or an average of $134 each. Its engines and machinery cost $18,459, snow-plows $9,170, omnibuses $9,172.20, stable furniture $6,105.16, office furniture and fixtures $3,695.77, harness $10,423.70, wagons $2,430.90, altogether a total of $4,597,785.98, representing property regularly employed in the operation of its road or connected therewith, and all of which was conveyed to the West Chicago St. R. R. Co. under the lease of October 20, 1887.

In addition it owned certain notes and bonds representing an

outlay of $14,430, and certain open accounts representing $5,-005.19.

It also owned 7,300 shares of the Chicago Passenger Ry. Co. capital stock, for which it had paid $850,850.00, which were also transferred to the West Chicago St. R. R. Co. under the lease, making the total cost value of the property transferred to the latter company $5,448,635.98.

Against this it had outstanding liabilities at the time as follows: Capital stock, $1,250,000; certificates of indebtedness, $2,987,500; Suffern note, $30,000; total, $4,267,500. It had other liabilities, but in the settlement under the lease they were not assumed by the lessee company. For example, there were outstanding bills payable amounting to $437,940.86, accrued interest on bonds $56,-291.68, conductors' and drivers' deposits $21,125, taxes accrued $31,679, and certain accounts payable $1,974.52, making total liabilities of every character $4,816,511.06, against total assets of every character $5,468,071.17, and showing a net surplus of $651,-560.11 on October 29, 1887.

Sec. 3.—Transfer of Property under Lease.

This surplus belonged to the stockholders of the Chicago West Division Ry. Co., and in the division and transfer of the assets and liabilities under the lease it became necessary to devise some method by which it could be distributed among the stockholders. In order to make the distribution and secure funds for the immediate payment of the $549,011.06 floating debt not assumed by the lessee company, it was decided to issue $1,052,500 additional certificates of indebtedness, making the total amount $4,040,000.

The remaining sum necessary to effect the liquidation was secured by means of the following settlement with the West Chicago St. R. R. Co., viz.:

Payments made by Chicago West Division Ry. Co. for account of the West Chicago St. R. R. Co.:

Operating expenses, Sept., Oct. and Nov., 1887	$408,977.17
Operating expenses, Dec., 1887	153,264.42
Taxes	6,709.73
Interest coupons 5 per cent. Jan., 1888	86,000.00
Interest coupons 6 per cent. Dec., 1887 (one half)	7,125.00
Sundry bills	2,280.09
Salaries of officers 12 days in Jan., 1888	821.88

37 passenger cars (Chicago Passenger Ry.)	29,030.00
Advanced on note of West Chicago St. R. R. Co	150,000.00
Total	$844,208.20

Credits allowed West Chicago St. R. R. Co.:

Sept., Oct. and Nov., 1887, receipts	$714,622.84
One-third taxes for 1887	11,720.36
Interest 5 per cent. certificates, July 1 to Sept. 1, 1887	28,666.67
Interest 5 per cent. certificates, Jan., 1888	5,000.00
City of Chicago water bill	127.65
Cash	25,816.68
Sum stipulated in lease to be paid by Chicago West Division Ry. Co...	37,500.00
Total	$823,454.20
Balance due Chicago West Division Ry. Co	$20,754.00

This balance was paid by the assumption by the West Chicago St. R. R. Co. of the amount due conductors and drivers on account of their deposits with the Chicago West Division Ry. Co., by which assumption these deposits were transferred to the lessee company and became a liability of that company, thereby reducing the amount of the floating debt to be paid by the Chicago West Division Ry. Co. in the final settlement.

Sec. 4.—Operations under Lease.

After the lease of this road to the West Chicago St. R. R. Co. 1.96 miles of new single-track horse railroad extension were built by the last named company for or on account of the lessor company, the cost of which, so far as the books show it distinct from the general disbursements, on construction account, is obscure, but the cost was evidently the same as other horse-railroad being built at that time, viz.: $23,825.68 per mile.

This small extension, with 66.72 miles of the original 98.45, was afterward converted into electric railroad, a total of 68.68 miles of single track, at a cost of $825,163.04, or $11,985.48 per mile.

Of the remaining track 450 feet on Lake St. from Wabash Ave. to State St. was transferred to the Chicago City Ry. Co. to form part of their cable loop; 33,054.7 feet, or 6.26 miles, still remains as horse railroad, representing an original cost value of $123,046.43, and 134,018.6, or 25.38 miles, has been converted into cable road, for a part of which the exact cost is uncertain, as elsewhere explained in this report.

For that part known as the Blue Island Ave. & Halsted St. cable line, extending from Western Ave. to Halsted St. on Blue Island Ave. and from the junction of Blue Island Ave. and Halsted St. on Halsted St. to O'Neill, and on O'Neill to the car barns; from

Blue Island Ave. to Van Buren St. on Halsted, and on Van Buren through the tunnel and around the loop, a distance of 11.655 miles single track, the cost was $1,124,188.06, or $96,455.43 per mile, independent of the cable power house at 12th St. and Blue Island Ave., which cost $233,290.50 for the land and buildings and $173,240.47 for the machinery, and of the Van Buren St. power house, which cost $142,326.44 for the buildings and land and $116,627.53 for machinery.

The exact cost of this entire system, including real estate, power houses and machinery, is established, and represents a total investment as follows:

11.655 miles single track cable road		$1,124,188.06
Blue Island Ave. power house	Real estate	233,290.50
	Machinery	173,240.47
Van Buren St. power house	Real estate	142,326.44
	Machinery	116,627.53
Total cost		$1,789,673.00

Of the original $1,935,131.52 first cost of the 98.45 miles of single-track road existing at the time of the lease, plus $46,698.51 at the same rate per mile for the 1.96 miles built soon after, there remains of the total horse railroad mileage 6.26 miles single track and $123,046.43 of the original cost, showing a depreciation in value, because of the substitution of a road of a different character, the cost of which substitution is necessarily taken as the cost value of the road after the change, the sum of $1,858,783.60 chargeable to profit and loss.

Sec. 5.—Assets and Liabilities Compared.

Of the original road and extensions made since the lease there existed on December 31, 1897, the following:

6.26	miles single track horse road	$123,046.43
68.68	miles single track electric road	825,163.04
11.655	miles single track cable road (actual)	1,124,188.06
0.321	miles single track cable road (actual)	44,690.05
13.404	miles single track cable road (estimated)	1,292,888.56
100.32	miles single track	$3,409,976.14
Add	Real estate, on Oct. 20, 1887	449,158.73
	Buildings, on Oct. 20, 1887	927,984.00
	Western Ave. power house	520,455.65
	Halsted St. car house alterations	11,803.70
	New building Clybourn Place	52,839.50
Total		$5,372,217.72

Against this are oustanding liabilities as follows:

Capital stock	$1,250,000.00
First mortgage bonds	4,070,000.00
Due West Chicago St. R. R. Co.	4,869,998.38
Total	$10,189,998.38

showing a deficit of $4,817,780.66.

This deficit, however, does not take into consideration the fact that in converting the 68.68 miles single-track horse road into trolley road there may have been more or less salvage in the old road which became incorporated into the new trolley road, the value of which is lost in assuming that the sum actually expended in making the conversion likewise represents the full cost value of the road as it exists at the present day. As a matter of fact, the entire street pavement of the old horse road referred to was relaid or continued in use as before the change, and therefore its original cost is properly a part of the total cost value of the new electric road.

The exact amount of pavement thus relaid and its original cost are as follows:

Wood,	16.603	miles by 8 feet, cost	$77,923.00
Cobble,	44.107	miles by 8 feet, cost	258,761.25
Granite,	7.97	miles by 8 feet, cost	74,811.68
	68.68	miles Total, cost	$411,495.93

Deducting this sum from the deficit first obtained leaves as a final deficit $4,406,284.73, and by adding it to the sum actually expended in making the change from horse to trolley road, to wit.: $825,163.04, makes the total value of the 68.68 miles single-track trolley road $1,236,658.97, or an average of $18,006.10 per mile.

EXHIBIT VI.—WEST CHICAGO STREET RAILROAD CO.

Sec. 1.—Lease of West Side Lines.

This company was incorporated July 19, 1887. Its original capital stock was $10,000,000, divided into 100,000 shares of $100 each. The original subscribers and directors were:

David Crawford, 99,497 shares; Richard C. Crawford, 500 shares; J. Chas. Moore, 1 share; J. A. Reeve, 1 share; Burdetta C. Barnes, 1 share. At the first meeting of the board of directors

Reeve, Barnes and David Crawford resigned and Andrew Crawford, F. S. Winston and C. T. Yerkes were elected directors in their places.

On November 11, 1887, P. A. B. Widener, W. L. Elkins and Wm. H. Kemble apparently owned 6,251 shares of stock of the Chicago West Division Railway Company, or one share more than one-half the entire capital stock of the last named company. At the meeting of the board of directors of the West Chicago St. R. R. Co. on November 11, 1887, it was proposed to purchase this stock from Widener, Elkins and Kemble, and thereby secure control of the road. At the same time it was proposed to lease the Chicago West Division Ry. in the following terms:

Lessee to pay rental equal to 35 per cent. per annum on the capital stock of the lessor company, which was at that time and still remains $1,250,000; $109,375 per quarter; first payment Jan. 20, 1888. Lessee to receive the entire gross earnings from August 31, 1887, meaning the gross passenger receipts, and $37,500 in cash. Lessee to assume the outstanding bonded debt of the lessor company, which at that time was as follows:

Certificates of indebtedness dated March 1, 1882, 6 per cent., 20 years..	$125,000.00
Certificates of indebtedness dated June 1, 1882, 6 per cent., 20 years..	475,000.00
Certificates of indebtedness dated July 1, 1887, 5 per cent., 20 years..	3,440,000.00
Total.....	$4,040,000.00
Also note for $30,000, secured by trust deed of Lot 1, Block 4, Suffern's Sub. S. W. ¼ Sec. 6-39-14, 5 per cent., dated April 26, 1886.....	30,000.00
Total.....	$4,070,000.00

The consideration for the lease and the 6,251 shares of stock was 4,100 bonds of the West Chicago St. R. R. Co., $1,000 each, 5 per cent, 40 years (to be secured by the 6,251 shares of West Division stock), and $6,000,000 in cash, or capital stock, at the option of the lessee company.

It was stipulated in the lease that the lease itself was to bear date and take effect as of October 20, 1887, and continue for 999 years; that if the lessee took up or redeemed all or any part of the $4,070,000 outstanding debt the lessor company would issue new bonds to the lessee to take their place. Under this stipulation the present outstanding $4,070,000 1st mortgage 4½ per cent. bonds of the Chicago West Division Ry. Co. were issued May 28, 1892.

It was further stipulated that the lease was not transferable.

This did not, however, apply to the Chicago Passenger Railway, which at that time was being operated by the Chicago West Division Railway Company, but it was expressly stipulated that the inventory of the property to be turned over by the last named company should include the 7,300 shares of the Chicago Passenger Ry. Co., then owned by the Chicago West Division Ry. Co., and by means of which control of the property of that company was also secured under the lease of October 20, 1887.

The lease also stipulated that the lessee company should build not less than 17 miles of cable road and "for the purpose of preserving the necessary information for an intelligent accounting between the parties hereto" an inventory of the property transferable was to be made and preserved, "also an account of the cost of all permanent improvements to the property demised that is made by said lessee other than ordinary repairs, herein provided for, to be made by said lessee, etc."

Sec. 2.—Construction of Cable Road.

I have succeeded in obtaining a partial list of the property transferred, but for the 17.47 miles of single-track cable road built soon after the lease was made I have been able to find no detailed account such as would seem to be clearly called for by the terms of the lease. The records simply show that on November 17, 1887, the board of directors authorized the president to enter into a contract with the United States Construction Company to lay a cable road on the following streets:

Madison St., double track, 40th St. to Desplaines or Jefferson Sts.; Desplaines or Jefferson, double track, Madison to Washington St.; Washington St., Desplaines or Jefferson through Washington St. tunnel to 5th Ave.; double track and single track from 5th Ave. to State St.; State St., Washington to Madison St., single track; Madison St., State to 5th Ave., single track; 5th Ave., Madison St. to Washington St., single track; Armitage Ave., Milwaukee Ave. to barn, double track; Milwaukee Ave., Armitage Ave. to Desplaines or Jefferson, double track; Desplaines or Jefferson, Milwaukee Ave. to Washington St., double track.

The contract subsequently entered into specified that the Construction Company shall furnish all necessary passenger and grip cars; repair and put in good condition the Washington St. tunnel and light the same; make all necessary vaults, changes of sewer and gas pipes, water pipes, conduits, pavements and any other improvements; also engines, engine houses, machinery, cables and all necessary changes of the cars now used on the horse railroads on said lines so to be cabled and any additional cars, to thoroughly equip the said cable tracks sufficient to do the said railroad company's business thereon. * * * In short, the said Construction Company shall furnish and do everything necessary to complete and

equip the said cable system except furnishing the real estate on which to erect necessary buildings—that to be provided by the said railroad company.

All patent rights of the Construction Company are conveyed to the railroad company. Work to commence within thirty days from receipt of authority from the City of Chicago. This authority was contained in the ordinance of March 30, 1888.

The consideration to be paid was $4,000,000 in cash or stock at the option of the West Chicago St. R. R. Co. The company elected to pay in stock and "to deliver the same in installments from time to time as the work progressed upon estimates approved by the president of this company." The contract required that the "$4,000,000 be paid in cash at once to the Construction Company. They to put $4,000,000 in capital stock of the West Chicago St. R. R. in trust as security for the completion of the contract and receive instalments of it back on estimates of the president of the last named company of work done."

Pursuant to this stipulation, Geo. E. Newlin was on November 21, 1887, appointed trustee of the stock mentioned. On October 22, 1890, all of this stock had been delivered to the Construction Company by the trustee except 500 shares, and on that date these were ordered delivered by the board of directors and the Construction Company released from its contract, the same having been completed.

Sec. 3.—Capital Stock Issued.

The contract for the lease and the purchase of the 6,251 shares of Chicago West Division Ry. Company stock from Widener, Elkins and Kemble for $4,100,000 in 1st mortgage 5 per cent, 40-year bonds of the new company and $6,000,000 in cash or capital stock was passed and approved by the board of directors and stockholders on November 11, 1887, the stockholders voting as follows:

C. T. Yerkes, 99,497 shares; R. C. Crawford, 500 shares; Andrew Crawford, 1 share; F. S. Winston, 1 share; J. C. Moore, 1 share.

Although the lease between the Chicago West Division Ry. Co. and the West Chicago St. R. R. Co. was dated October 20, 1887, as a matter of fact the new management did not assume actual charge of the property until January 12, 1888. Their books of account, however, were opened as of December 1, 1887, and the

receipts and disbursements from Aug. 31, 1887, subsequently posted.

On the last day of December, 1887, the first entries concerning the purchase of the 6,251 shares of stock, the lease of the Chicago West Division Ry. and the contract with the U. S. Construction Company appear, and these indicate that Widener, Elkins and Kemble were paid $5,100,000 for the 6,251 shares of stock and $5,000,000 for securing the lease, and the U. S. Construction Company $4,000,000 to construct the 17.47 miles of cable system already referred to. At the same time Widener, Elkins and Kemble are charged with $6,000,000 and the U. S. Construction Company $4,000,000, their respective subscriptions to the capital stock of the West Chicago St. R. R. Co., and "Capital Stock" account is credited with $10,000,000 to balance the transaction on the books. Widener, Elkins and Kemble are then credited with having paid their subscription of $6,000,000 in cash and the company takes credit with having paid them also in cash $1,000,000 on account of the 6,251 shares of Chicago West Division stock and $5,000,000 on account of the lease of the Chicago West Division Ry.

In the same manner the U. S. Construction Company is credited with paying its stock subscription in cash, and as an offset is charged with receiving the same amount in cash on account of the contract to construct the cable system already referred to.

The effect and obvious intent of these entries is to make it appear from the records that the capital stock was sold for cash and incidentally that the transaction in stock was entirely distinct and independent of the contract for the construction of the cable system, the purchase of the 6,251 shares of Chicago West Division Ry. Co. stock and the lease of the last named road; the fact that the contracting parties in each instance were identical was a mere coincidence without special significance.

The improbability that any of the capital stock was disposed of for cash may be inferred from several collateral facts.

(1) It was expressly stipulated in the lease and in the cable construction contract that payment might be made in *cash or capital stock* at the option of the Railroad Company, which reservation, though not conclusive in itself, is presumptive that payment was

made in capital stock, being the most convenient and economical form of payment.

(2) The parties to whom the West Chicago St. R. R. Co. was indebted being likewise indebted to the West Chicago St. R. R. Co. in precisely the same sum, one obligation being offset by the other, the most natural supposition is that the simplest and most direct method of settlement was adopted, which would have been to exchange the stock for receipted vouchers representing payments on account of the construction contract, lease, etc.

(3) Four millions of capital stock was placed in the hands of Geo. E. Newlin, as trustee, to be paid over to the U. S. Construction Co. in installments as work progressed on the cable system.

The total cost of the cable system, according to the contract, was not to exceed four million dollars, and so far as the "Construction" account shows this entire sum was paid to the U. S. Construction Company in cash in advance of any work done by that company; thereupon the latter company returned the money to the West Chicago St. R. R. Co., in payment of its subscription, receiving in return the $4,000,000 capital stock referred to above, which it deposited in trust as a guarantee that it would complete the construction of the cable system.

Aside from the unusual character of the guarantee—the amount on deposit at all times being more than sufficient to cover any loss that the West Chicago St. R. R. Co. might sustain by being compelled to relet the contract—it will be noticed that the stock itself is supposed to have been paid for with the $4,000,000 received from the West Chicago St. R. R. Co.

A careful examination of the books of the company shows that at no time prior to or approximating the date of the cable contract, November 17, 1887, was the West Chicago St. R. R. Co. in possession of so large a sum as $4,000,000 in cash, and therefore could not have made any such payment to the U. S. Construction Co.

It had only its $10,000,000 in capital stock with which to pay for anything. Its first issue of bonds ($4,100,000) had not yet been printed, and in fact were not authorized till April 9, 1888, and it had not yet come into actual possession of the property or funds of the Chicago West Division Ry. Co., and therefore could not

make use of the receipts of that company from August 31, 1887, which under the lease were to be turned over.[1]

It is very plain that no such sum in cash was paid to the U. S. Construction Co. by the West Chicago St. R. R. Co. as stated in its books, and it is equally clear that the $4,000,000 in stock deposited in trust by the U. S. Construction Co. was not paid for at the time of its deposit, and therefore the instalments of stock subsequently paid over to the U. S. Construction Co. by the trustee from time to time were not a release of any part of the supposed guarantee deposit but actual payments in stock for work done as it progressed.[2]

The only entry in the books to show the payment of $4,000,000 for the cable system is that of December 31, 1887, as already stated, and as that could not have been paid in cash it is fair to presume that it was paid in stock, the only available means the company possessed at that time of paying any such sum.

Immediately the stock was issued and became a liability of the company, it was necessary to offset it with an entry on the other side of the ledger, and this was done by opening "Construction" account and debiting it at once with $4,000,000, although there was nothing in the way of tangible property to show for it.

Sec. 4.—Payment for Negotiating Lease.

The supposed receipt of $6,000,000 in cash from Widener, Elkins and Kemble, in full payment of their subscription to the capital stock, and the immediate repayment of the money to them —$5,000,000 on account of the lease which they had negotiated and which had been signed and approved by both parties, by the lessor on October 29, 1887, and by the lessee on November 11, 1887, and $1,000,000 in advance for the 6,251 shares of Chicago West Division Ry. Co. stock which they were to deliver—are entries of a similar character, although the money or a cheque for

[1] Even if it had been in possession, the gross receipts from August 31, 1887, to December 31, 1887, when the transfer was made, without any deduction for operating expenses in the meantime, were less than one-quarter the sum supposed to have been paid in cash to the United States Construction Company prior to December 31, 1887.

[2] In this connection it may be well to call attention to the absence of any provision in the contract for the forfeiture of the whole or any part of the guarantee deposit for non-fulfillment of the contract, which in itself rendered the supposed guarantee of no value, and under the circumstances was useless, since the deposit would revert to its proper owner in that contingency.

$6,000,000 might have actually been passed back and forth, but the improbability and inutility of such a movement is plain, since it was needless to effect a set-off in the accounts.

It is not part of my functions to enter into the question of the reasonableness of the charge of $5,000,000 for simply negotiating the lease between the two railroad companies, one of which already controlled the acts of the other by reason of its ownership of a majority of the capital stock or for which ownership provision had already been made, but simply to state the facts as I find them. At the same time it would be impossible to pass over such a payment for services without comment, especially as the necessity for such service on the part of outside parties is not in the remotest degree apparent.

So far as the entries in the books are concerned, no attempt is made to conceal the payment of $5,000,000 to Widener, Elkins and Kemble for negotiating the lease, although a consolidation of accounts two years after the payment may have had that for its object. Up to December 31, 1890, an account was carried on the ledger showing a debit balance of $5,000,000 under the title "Leasehold." On that date it was closed out and the balance transferred to a new account entitled "Cable Road, Power Station, Lease and Equipment," and to the same account was transferred $4,000,000 from the general "Construction" account, making a total to the debit of that account of $9,000,000, which has been carried through the trial balances of the company each year since.

So far as this entry affected the construction account, it explicitly states that it is made "so that 'Construction' account will show the expenditures for new work other than that done by the U. S. Construction Co.," which is correct.

The payment of $1,000,000 to Widener, Elkins and Kemble, however, seems to have been premature and forced, as the contract for the delivery of the 6,251 shares of Chicago West Division Ry. Co. shares allowed them two years from November 11, 1887, in which to make the delivery; and the $4,100,000 of 1st mortgage bonds, the principal part of the consideration, were not authorized until April 9, 1888, and not delivered to them until May 15, 1888.

A careful scrutiny of all the entries in the books, and con-

sideration of all the circumstances in connection with the issue of the capital stock and bonds, leads me to believe that the sole purpose of the promoters was to gain possession of the entire capital stock of the company in advance of the delivery of the 6,251 shares of West Division stock and the commencement of the work of installing the proposed cable system. The redepositing of $4,000,000 of the stock under the pretext of guaranteeing the completion of the cable contract was, in effect, the return of that much stock to cover the cost of construction, but the $6,000,000 retained by the promoters evidently represented their profits.

Sec. 5.—Mr. Yerkes' Interpretation of the Lease.

The precise distinction on the books in recording the issue of the stock to Widener, Elkins and Kemble and the U. S. Construction Co., and the exact division of the stock and bonds between them and for the purposes shown by the books of account, have, in my judgment, no real significance, as all of these parties were, together with the management of the West Chicago St. R. R. Co., practically one and the same institution, with interests in common and controlled by the same motive from long association.

Furthermore, Mr. Yerkes' own explanation of the circumstances accords with this supposition:

"With the object in view of accomplishing a certain end, two contracts were made. That end was that Elkins, Widener and Kemble and the United States Construction Company were to furnish to the West Chicago Street Railroad Company 6,251 shares of West Division stock and a cable plant.

"It was agreed between the parties in interest that for the cable plant the railroad company was to pay $10,000,000 in cash or stock, and for the 6,251 shares of West Division stock $4,100,000 of first mortgage bonds.

"At the time the contracts were made the railroad company insisted that $10,000,000 of stock should be delivered only as the work progressed and on engineers' certificates. This did not suit the plans of Elkins, Widener and Kemble, who insisted that they should receive at least one-half of the stock before the work commenced, so that they could arrange with some of their associates for money.

"Finally the railroad company agreed to give them $6,000,000 of stock at once and $4,000,000 of stock as the work progressed.

"The contracts were made in accordance with this arrangement. The contract was made with the construction company for $4,000,000 of stock, and with Elkins, Widener and Kemble for $6,000,000 of stock and $4,100,000 of bonds, the object being to place the matter in such a position that the stockholders of the West Chicago Company could not complain that the stock was delivered before value was received by the railroad company.

"As the construction company and Elkins, Widener and Kemble were the same, they were willing to take it in this way.

"Of course there had to be some consideration given for the delivery of this $6,000,000 of stock. That consideration was named in the contract as obtaining the lease.

"In making the entries for these different items, the terms of the contracts were held to. Really the agreement was that the railroad should pay $10,000,000 of stock for the work done.

"I would say, further, that the $6,000,000 of stock which Elkins and Widener received went to the United States Construction Company, the United States Construction Company using it in payment of the work."

In the absence of the books of the U. S. Construction Co. it is difficult to state what the actual cost of the cable plant was. According to Mr. Yerkes, the cost was $7,800,000, leaving $2,200,000 to cover any discount at which the stock may have been disposed of by the Construction Co. and the profit to the promoters.

In the case of the North Chicago St. R. R. cable plant, the actual cost is stated to have been $4,200,000. In that instance the plant consisted of 11½ miles of single-track road and necessary power houses, etc., while in the case of the West Chicago St. R. R. plant 17.47 miles single track cable road, etc., were built, which at $7,800,000 would seem to indicate that the difference in cost is approximately in proportion to the difference in mileage. But this is not conclusive, for obvious reasons.

I have made every endeavor to obtain access to the books of the U. S. Construction Co., in order to ascertain the exact cost of both plants, and have suggested that it was in the interests of the companies themselves to show beyond question that the West Side system cost $7,800,000 and the North Side $4,200,000, as claimed, but without success.[1]

[1] From Mr. J. C. Moore, the present secretary and treasurer of the North Chicago Street Railroad Company, who kept the Chicago books of the United States Construction Company during the period of construction, I learned that most of the purchases of iron and other heavy material and the making and payment of subcontracts were made directly from the Philadelphia office of the company, and therefore do not appear on the Chicago books; and that the latter books contain the disbursements for labor only, and therefore would afford no satisfactory information as to the total cost. These books were forwarded to Philadelphia when the work was completed. I have asked for these books, nevertheless, or for the privilege of examining the general books of the company in Philadelphia.

Mr. Yerkes consented to my request, and he not only consented but actually produced every book and paper accessible which I have called for, although indisposed to do so in the beginning of my investigation, and, I understand, wrote to Mr. Widener at Philadelphia, requesting for me the privilege of examining the construction company's books. A few days later he informed me that he had received word from Mr. Widener that he (Widener) did not know where the books were.

I am indisposed to believe that Mr. Yerkes has otherwise than stated the truth in this effort to obtain access to the books mentioned, as it is clearly in his interest to produce the records in support of his statements, since the result of my examina-

Sec. 6.—Market Value of West Division Railway Stock.

In the course of my investigation I obtained from Mr. Webb, the secretary, an official statement of the net profits of the Chicago West Division Ry. Co. for the ten months preceding its lease to the West Chicago St. R. R. Co., which seems to show the basis upon which the guaranteed rental of 35 per cent. per annum was afterwards made.

From this statement it would appear that the net profits for the period mentioned were $364,161.85, or at the rate of 35 per cent. per annum on the capital stock of $1,250,000. On a 5 per cent. basis this would give the stock a market value of $700 per share, or an aggregate of $8,750,000, and 6,251 shares would represent a market value of $4,375,700.

According to the contract with Widener, Elkins and Kemble, the West Chicago St. R. R. Co. paid $5,100,000 for 6,251 shares, or at the rate of $815.86 per share. This accords with the sworn statement of the company filed with the New York Stock Exchange at the time of listing the securities, but is in conflict with Mr. Yerkes' own statement, quoted above, that the $4,100,000 first mortgage bonds were issued in payment of the 6,251 shares of West Division stock.

Considering the importance of this information in determining the value received by the company in return for its securities, it is necessary to briefly state a few reasons for believing that the average price paid the actual owners of these shares was between $655 and $656 per share.

It will be remembered that the West Chicago St. R. R. Co. was not incorporated till July 19, 1887; nevertheless the 1896 issue of the *Economist Street Railway Supplement* states, as coming from re-

---

tion thus far shows an apparently excessive profit to the promoters of the North and West Side roads. But as it is a matter of public notoriety that for several years he has not been on the most friendly terms with his former colleagues, it is therefore not unreasonable to presume that his influence with them is less than formerly. They certainly cannot have the same motive for submitting their private acts to public scrutiny.

As regards Mr. Yerkes himself, this report will show, without the necessity of making the statement, that I have had access generally to all the facts concerning his companies, and that my examination covers practically their whole history from their inception down to January 1, 1898. In no case have I been satisfied to accept information from him or any of his subordinates except where I have subsequently had the opportunity of verifying it by reference to the records themselves. In all cases where I have received information without such verification, the circumstances are explicitly stated herein, as well as the reasons for introducing it.

liable authority, that one month earlier, or "in June, 1887, negotiations were *closed* between Chas. T. Yerkes and his associates and the officers of the Chicago West Division Ry. Co., by which Mr. Yerkes acquired 6,251 shares, or one more than a majority of the capital stock outstanding. The price paid was $650 a share, arrangements being made for the payment of that amount in several installments."

The first proposition presented to the West Chicago St. R. R. Co. for the purchase of these shares was on November 11, 1887, and according to the terms agreed upon, Widener, Elkins and Kemble were given two years in which to make delivery, which would seem to indicate that the desired number of shares was yet to be acquired by them.

As the action of the market price for some time before and after this date has a direct bearing upon the price paid, it may be stated that on June 12, 1886, the quotations on the Chicago Stock Exchange were $400 per share bid and $425 asked. These were the ruling quotations for the balance of the year 1886. On May 27, 1887, or one month before the deal was *closed*, according to the *Economist's* supplement, the price bid was $475 and $600 asked. As late as December 30, 1887, the price asked was $700 per share, with no bidders. This was the highest price asked for the shares at any time up to the close of the year 1887, so far as the public quotations show, and would indicate that if the officers of the Chicago West Division Ry. Co. were in a position to guarantee the delivery of 6,251 shares as early as June, 1887, the price stipulated did not exceed an average of $656. Even if the transaction was still open after that date, the price, in any event, did not exceed $700 per share, the highest quotation reached on the Chicago Stock Exchange, if such quotations are any indication of the exchange value of the stock.

As the range of prices asked was from $600 on May 27, 1887, to $700 on December 30, 1887, it naturally follows that the average price was between the two, and as $4,100,000 in bonds was issued on the deposit of 6,251 shares, this would make the average value of each share a little less than $656, which was undoubtedly the average price paid for it.

A strong reason for presuming that the average price paid for

the stock was the basis for the issue of the bonds is the fact that that was the plan previously adopted in the first issue of bonds by the North Chicago St. R. R. Co.; in fact, the whole general plan of financing both roads was precisely similar except in this single instance, if the assumption set forth above is incorrect.

The statement of Mr. Yerkes that the entire original capital stock of $10,000,000 was set aside to pay for the cable system, and that the actual cost was $7,800,000, makes it safe to presume that the usual profit of 20 per cent. was contemplated on the estimated cost. Furthermore, nothing is said in the lease of November 17, 1887, about $1,000,000 in capital stock being set aside as part payment of the 6,251 shares of West Division stock, all of which seems to show that $4,100,000 in bonds was issued to provide the funds with which to pay for the 6,251 shares of West Division stock and $1,000,000 in stock was charged to the cost of these shares, in order to allow the promoters a profit of that amount for negotiating the sale.

However desirous Mr. Yerkes and his associates may have been to secure control of these shares, it is reasonable to suppose that there was a limit to the price they were willing to pay for them, and this limit was undoubtedly the earning power of the road itself. As has already been stated, the net earnings for the first ten months of 1887 were $364,161.85, or at the rate of 35 per cent. per annum on the capital stock. That rate was actually guaranteed on the 6,249 shares of outstanding free stock, and by depositing the 6,251 shares in trust and issuing $4,100,000 5 per cent. bonds against them the transaction was equivalent to a guarantee of 35 per cent. on the 6,251 shares also. To have issued $5,100,000 in bonds would have increased the guarantee more than the property was earning, which would have been to assume a risk inconsistent with sound financiering, particularly as interest had also to be earned on the new capital to be invested in developing the property.

This fact would seem to show more than anything else, that even if Widener, Elkins and Kemble were the actual owners of the entire 6,251 shares, and not merely the holders of an option on all or a portion of them, the price which they paid to obtain them did not exceed $4,100,000 in the aggregate, and as the $1,000,000 in

stock paid them (in addition to the $4,100,000 bonds) did not represent any outlay in money on their part, they could well afford to waive any immediate share in the earnings of the company until such time as, under their management, the property could be made to develop additional earning power.

As only $14,100,000 in stock and bonds were issued, if $5,100,000 were paid for the 6,251 shares of Chicago West Division Ry. Co. stock, according to the books, then only $9,000,000 could have been set aside for the construction of the cable system, which is $1,000,000 less than Mr. Yerkes claims. And if the presumption is that Mr. Yerkes desires to make the profits of the promoters appear as little as possible, he loses an advantage of $1,000,000 by adhering to the statement that $10,000,000 and not $9,000,000 was the correct amount, for it would seem much more probable that whatever was paid out for the 6,251 shares of West Division stock went to the original owners of that stock than that the promoters added anything to the cost for their own benefit, especially as there was no particular necessity of concealing so comparatively small a sum as $1,000,000 for what might, under some conditions, be a reasonable charge for their services in securing control of the Chicago West Division Ry. when they were at no pains to conceal a charge of $5,000,000 for practically the same service in giving expression to that control in a formal lease of the road.

Sec. 7.—Value of West Chicago Street Railway Stock.

Considering that the earnings of the road were fully mortgaged by the guaranteed rental of 35 per cent. on the capital stock of the Chicago West Division Ry., leaving the prospective increase in earnings to take care of the $10,000,000 new capital of the West Chicago St. R. R. Co., it has suggested itself to me that possibly the last named stock was not considered as worth par at the time of its issue, or, if sold in the market to provide funds to construct the proposed cable system might not have realized the full $10,000,000 in cash.

Such a supposition finds no support in the official records of the Chicago Stock Exchange, as the earliest quotation of the stock of the West Chicago St. R. R. Co. was on June 14, 1889, to-wit: 103 asked and 102½ bid. There is nothing to show that it possessed any lower value at any time previous unless such an assumption

may be drawn from the report of the treasurer of the company for the year 1888, read at the annual meeting of the stockholders on January 8, 1889, viz:

Capital stock, including $4,000,000 United States Construction Company, held to complete contract		$10,000,000
Bonded indebtedness		4,100,000
C. W. Div. Ry. rental	$437,500	
" " interest	210,500	
" " maintenance	3,000	
Fixed charges		$651,000
Receipts, 1888		$2,846,395.74
Expenses, 1888		2,890,302.05
Deficit		$43,906.31
Cash on hand January 1, 1888		$185,373.71
Less deficit		43,906.31
Balance on hand January 1, 1889		$141,467.40

This report, however, does not indicate the true condition of the company, nor agree with the books of the company, which show that the gross receipts and operating expenses of the company were as follows:

Gross receipts	$2,835,002.35
Operating expenses	1,846,337.23
Net from operation	$988,665.12
Deduct interest and rentals	651,994.40
Net earnings	$336,670.72

Out of these earnings dividends had been paid at regular intervals during the year as follows: April 28, 1888, 1¼ per cent.; July 26, 1888, 1¼ per cent.; November 5, 1888, 1¼ per cent.; and at the meeting of the directors on February 11, 1889, a further dividend of 1¼ per cent. was paid, thereby establishing the stock as a 5 per cent. per annum dividend paying security as early as April 28, 1888.

Considering that the construction contract provided that work on the cable system should commence within 30 days of the granting of permission by the City of Chicago, and that such permission was not issued till March 30, 1888, or accepted by the company till April 2, 1888, it is very evident that the stock had an established par value, if not higher, before a dollar of it was disposed of for the purpose of providing funds for the construction of the cable system.

Sec. 8.—Capital Expenditures, 1887-1897.

The total expenditures of this company other than operating expenses, that is, the sum expended in the purchase of property, construction and reconstruction of roads, buildings, etc., from date of organization down to December 31, 1897, were $29,615,628.13, distributed as follows:

Chicago Passenger Railway	$1,156,749.52
Chicago West Division Railway	14,969,998.38
West Chicago Street Railroad	13,488,880.23
Total	$29,615,628.13

The following schedules show the details for each of the roads named:

CHICAGO PASSENGER RAILWAY.

2.836 miles single track horse road, converted into cable road by the U. S. Construction Company; contract price per mile, $164,723.65	$466,056.28
0.314 mile single track new cable road, at $139,221.37	43,715.51
4.396 miles S. T. new horse road, at $23,825.68	104,737.66
2.01 miles S. T. horse road converted into trolley road, at $24,204.17	48,650.39
26.575 miles horse road, S. T., converted into trolley, at $18,573.46	493,589.68
Total	$1,156,749.52

CHICAGO WEST DIVISION RAILWAY COMPANY

13.404 miles single track horse road converted into cable road by U. S. Construction Company, at $164,723.65	$2,207,955.82
11.655 miles single track new cable road, built by West Chicago Street Railroad Company, at $96,455.43	1,124,188.06
0.321 mile single track new cable road, at $139,221.37	44,690.05
1.96 miles single track new horse road	46,698.51
68.68 miles single track new horse road converted into trolley road, at $11,985.48	825,163.04
Western avenue electric power house	520,455.65
Halsted street car house improvements	11,803.70
New building, Clybourn Place	52,839.50
Miscellaneous items	36,204.05
Total expenditures for betterments	$4,869,998.38
Add payments to Widener, Elkins & Kemble—	
For controlling interest in the stock of the Chicago West Division Railway Company	5,100,000.00
For securing lease of the Chicago West Division Railway Company.	5,000,000.00
Total	$14,969,998.38

WEST CHICAGO STREET RAILROAD.

1.23 miles single cable road, built by U. S. Construction Company; contract price, $164,723.65 per mile	$203,710.09
Three power houses and machinery, built by U. S. Construction Co.	998,277.81
155 grip cars, built by U. S. Construction Company	124,000.00

50.32 miles single track horse road, built by West Chicago Street Railroad Company, at $22,499.57		1,132,178.36
25.97 miles single track new trolley road, built by West Chicago Street Railroad Company, at $18,573.46		482,352.76
50.32 miles single track horse road converted into trolley road, at $11,985.48		601,109.45
Miscelleaneous items charged to construction account—		
Taylor street bridge	$100,000.00	
Taylor street viaduct	7,654.55	
Halsted and Kedzie street viaducts	2,427.88	
Ogden avenue viaduct	7,861.90	
Milwaukee avenue viaduct	1,000.00	
Steel rails and asphalt for Madison street	52,376.18	
Franchise petitions	207,321.37	
Interest and dist. on bonds	282,972.12	
		661,614.00
Equipment—		
Horse cars	$29,030.00	
Grip cars, trailers, etc	962,956.01	
Electrical equipment	764,956.10	
		1,756,942.11
Machinery—		
Blue Island avenue power house	$173,240.47	
Van Buren street power house	116,627.53	
Desplaines street power house	72,971.69	
Washington street power house improvements	54,685.68	
Miscellaneous	53,455.65	
		470,981.02
Electrical ronduits, Western avenue		79,112.64
Miscellaneous property in use—		
Car heaters	$32,944.56	
Registers	43,638.95	
Storehouse supplies	9,058.63	
Horses	29,902.50	
Telephone and signal system	3,483.80	
Car shop stock	21,108.27	
Cables	112,285.39	
Punches	69.70	
Gripmen's tools	182.54	
Hay	142.94	
		252,817.28
Advance to feeder lines and connections—		
Cicero & Proviso Street Railway Company	$159,510.10	
Ogden Street Railway Company	398,662.42	
Lake Street Elevated Railroad Company	20,077.15	
Chicago & Jefferson Urban Transit Company	7,911.23	
Suburban Railroad Company	18,139.31	
North Chicago Street Railroad Company	46,586.65	
North Chicago Electric Railway Company	15,250.76	
Chicago Electric Transit Company	931.22	
West Chicago Street Railroad Tunnel Company	118,236.45	
		785,305.29
Accounts receivable—		
Naugle, Holcomb & Co	$856.07	
City of Chicago	2,595.25	
Suspense	8,980.75	
Sinking fund	31,000.00	
Central Trust Company of New York, to redeem certificates of Ind	840,394.44	

Central Trust Company of New York to redeem coupons	129,000.00	
Bank of America, New York, to redeem coupons	2,850.00	
Track depression	12,244.48	
		1,027,920.99
Bills receivable		86,969.98
Stocks and bonds—		
West Chicago Street Railroad Debentures	$3,211,000.00	
Chicago & Jefferson Urban transit bonds	54,000.00	
West Chicago Railroad Consols	15,000.00	
West Chicago Railroad stocks	22,264.00	
		3,302,264.00
Real estate and buildings—		
Prior to introduction of trolley system—		
For cable roads	$644,084.59	
For horse roads	173,681.77	
	$817,766.36	
Less charge to Chicago Western Division Railroad Company	$64,643.20	
	$753,123.16	
Since introduction of trolley system	$670,963.48	
Miscellaneous improvements	96,557.98	
Special assessments	2,679.83	
		$ 1,523,324.45
Total		$13,488,880.23

Of the property represented by the above expenditures there existed December 31, 1897, the following items at their original cost value:

CHICAGO PASSENGER RAILWAY.

2.836 miles single track cable road built by United States Construction Company; contract price, $164,723.65 per mile; estimated price, $96,455.43 per mile	$273,547.60
0.314 mile single track cable at $139,221.37	43,715.51
2.01 miles single track trolley at $24,204.17	48,650.39
26.575 miles single track trolley at $18,573.46	493,589.68
Total	$859,503.18

Showing a depreciation of $297,246.34 as follows: 4.396 miles new horse road torn up and trolley road built in its place; original cost of horse road, 4.396 miles, at $23.825.68, total $104,737.66, and $192,508.68 difference between contract price and estimated cost of 2.836 miles cable road built by U. S. Construction Co.

CHICAGO WEST DIVISION RAILWAY.

13.404 miles single track cable road built by U. S. Construction Company; contract price, $164,723.65 per mile; estimated, $96,455.43 per mile	$1,292,888.56
11.655 miles single track cable road built by West Chicago Street Railroad Company; actual cost per mile, $96,455.43	1,124,188.06
0.321 mile single track cable road built by West Chicago Street Railroad Company; actual cost at $139,221.37	44,690.05

68.68 miles single track trolley road converted from horse road; actual cost of converting, $11,985.48		825,163.04
Western avenue power house, building	$155,535.55	
Western avenue power house, machinery	364,920.10	
		520,455.65
Halsted street car house improvements		11,803.70
New building, Clybourn Place		52,839.50
Total		$3,872,028.56

Showing a depreciation of $11,097,969.82 as follows:

Difference in contract price and estimated cost of the 13.404 miles cable road built by the U. S. Construction Company	$915,067.26
1.96 miles single track horse road converted into trolley road; original cost of horse road, $23,825.68 per mile	46,698.51
Miscellaneous expenditures covered by the above values	36,204.05
Price paid Widener, Elkins & Kemble for 6,251 shares of Chicago West Division Railway Company stock; omitted as an asset for reasons that will appear later	5,100,000.00
Price paid Widener, Elkins & Kemble for negotiating the lease of the Chicago West Division Railway Company to the West Chicago Street Railroad Company	5,000,000.00
Total	$11,097,969.82

WEST CHICAGO STREET RAILROAD.

1.23 miles single track cable road built by U. S. Construction Company; contract price, $164,723.65 per mile; estimated price per mile, $96,455.43		$118,640.18
25.97 miles single track new trolley road, complete, including street paving, at $18,573.46		482,352.76
50.32 miles single track trolley road converted from horse road; actual cost of converting same, $11,985.48 per mile. Total, $601,109.45.		
50.32 miles of street pavement relaid, originally part of 50.32 miles single track horse road torn up and replaced with trolley road. Total square yards, 236,168, divided as follows:		
19,712 square yards Granite at $2.00	$39,424.00	
23,607 square yards Cobble at 1.25	29,508.75	
192,849 square yards Wood at 1.00	192,849.00	
236,168 Total	$261,781.75	
Add cost of converting above	601,109.45	
50.32 miles single track trolley, complete, at $17,148.08		862,891.20
Equipment on hand December 31, 1897—		
364 box cars at $900	$327,600	
421 open cars at $725	305,225	
258 grip cars at $650	167,700	
401 box motor cars at $1,000	401,000	
415 open motor cars at $825	342,375	
1 trolley party car, $1,200	1,200	
5 mail cars at $900	4,500	
36 sweepers at $300	10,800	
49 snow plows at $400	19,600	
35 salters at $200	7,000	

7 sprinklers at $250	1,750	
60 other vehicles at $100	6,000	
		1,594,750.00
(The details of the remaining items, as well as the totals, are the same as in the schedule of expenditures given on a preceding page, nothing being marked from the original.)		
Machinery		$470,981.02
Electric conduits, Western avenue		79,112.64
Three power houses and machinery built by U. S. Construction Company (see estimate)		998,277.81
Miscellaneous property in use		252,817.28
Due from feeder lines and connections		785,305.29
Accounts receivable		1,027,920.99
Bills receivable		86,969.98
Stocks and bonds		3,302,264.00
Miscellaneous real estate and buildings		1,523,324.45
Total		$11,585,607.60
Total expended, West Chicago Street Railroad Company		$13,488,880.23
Total cost value of property existing December 31, 1897		11,585,607.60
Depreciation		$1,903,272.63

Following are the details of the depreciation:

Difference in contract price and estimated cost of the 1.23 miles single track cable road built by the U. S. Construction Company		$85,069.91
50.32 miles single track horse road converted into trolley road; original cost, $1,132,178.36. Deduct for street pavement relaid	$261,781.75	
		870,396.61
Depreciation in equipment		286,192.11
Miscellaneous items charged to construction account		661,614.00
Total		$1,903,272,63

SUMMARY.

	Total expenditures.	Cost value assets December 31, 1897.	Depreciation.
Chicago Passenger Railway	$1,156,749.52	$859,503.18	$297,246.34
Chicago West Division Railway	14,969,998.38	3,872,028.56	11,097,969.82
West Chicago Street Railroad	13,488,880.23	11,585,607.60	1,903,272.63
Totals	$29,615,628.13	$16,317,139.34	$13,298,488.79

Sec. 9.—Financial Condition, 1897.

The lease of March 15, 1889, with the Chicago Passenger Ry. stipulated that the 2.836 miles horse road of that company converted into cable road was to be paid for by the West Chicago St. R. R. Co. The contract price paid the U. S. Construction Company for converting the road was $164,723.65 per mile, or $466,056.28, and this amount should be transferred in the above summary from the Chicago Passenger Ry. account to that of the West

Chicago St. R. R., leaving the cost value $273,547.60 to stand, as it is, in the second column, since the improvement accrues to the first named company.

The $5,100,000 representing the 6,251 shares of the Chicago West Division Ry. Co. and the $5,000,000 paid for negotiating the lease of that company should likewise be transferred in the summary from the Chicago West Division Ry. account to that of the West Chicago St. R. R.

There should also be taken into account the settlement by arbitration May 9, 1896, between the Chicago Passenger Ry. Co. and its lessee, by the terms of which the former company was charged with $250,000 as its proportion of the Western Ave. electric power house, and the fact that that company actually paid to the lessee company $891,534.75, part of which was on account of the award mentioned, although the improvement was actually to the property of the Chicago West Division Ry. Co.

With the changes noted a new summary would be as follows:

SUMMARY NO. 2.

	Expenditures.	Cost value assets.	Appreciation.
Chicago Passenger Railway....	$49,158.49	$859,503.18	$810,344.69
			Depreciation.
Chicago West Division Railway	4,869,998.38	3,872,028.56	997,969.82
West Chicago Street Railroad..	23,804,936.51	11,585,607.60	12,219,328.91
Total	$28,724,093.38	$16,317,139.34	$12,406,954.04

It will be remembered that at the time of the lease of the balance in the hands of the West Chicago St. R. R. Co. on December 31, 1897, the sum will represent the total book-value of the assets of that company on the date mentioned.

If to the total of the first column is added the $353,972.19 cash Chicago Passenger Ry. there was turned over to the West Chi. St. R. R. Co. real estate and buildings representing a cost value of $661,202.99, and subsequently another piece of property costing $100,000, making a total of $761,202.99, representing real estate and buildings, still in the possession of the lessee company December 31, 1897.

There was also transferred 29.79 miles single track horse road, representing a cost value of $709,767.01, of which 2.38 miles only, representing a cost value of $56,705.12, remained on December 31, 1897.

UNIVERSITY OF CALIFORNIA

There was also 98.45 miles single track horse road of the Chicago West Division Ry. transferred at the date of the lease of that road by the West Chicago St. R. R. Co., of which 6.26 miles, representing a cost value of $123,046.43, remained in existence December 31, 1897.

The real estate and buildings of the Chicago West Division Ry. Co. existing at the date of the lease, and still in the possession of the West Chicago St. R. R. Co. on December 31, 1897, represented a cost value of $449,158.73 and $927,984 respectively. In the subsequent conversion of part of the old horse road into trolley road, 7.97 miles of granite pavement, 16.603 miles wood and 44.107 miles of cobble pavement, representing an aggregate cost value of $411,495.93, was relaid and now forms part of the present trolley road.

If these items were incorporated into the above summary they would produce the following result, viz:

SUMMARY NO. 3.

	Book value assets.	Cost value.	Depreciation.
Chicago Passenger Railway....	$49,158.49	$1,677,411.29	$1,628,252.80
Chicago West Division Railway.	4,869,998.38	5,783,713.65	913,715.27
West Chicago Street Railroad..	24,158,908.70	11,585,607.60	12,573,301.10
Totals	$29,078,065.57	$19,046,732.54	$10,031,333.03

The cost value of the assets of the two lessor companies are apparently in excess of the book value, according to the last summary, but this is because the first column shows the liabilities of these companies to the West Chicago St. R. R. Co. only, whereas, if the remaining liabilities are considered, the result would be as follows:

SUMMARY NO. 4.

	Total Liabilities.	Cost value of Properties.	Deficit.
Chicago Passenger Railway....	$3,123,458.49	$1,677,411.29	$1,446,047.20
Chicago West Division Railway.	10,189,998.38	5,783,713.65	4,406,284.73
West Chicago Street Railroad..	28,358,252.67	11,585,607.60	16,772,645.07
Totals	$41,671,709.54	$19,046,732.54	$22,624,977.00

The liabilities in detail are as follows:

	Chi. Pass. Ry. Co.	Chi. W. Div. Ry. Co.	W. Chi. St. R. R. Co.
Capital stock.....	$1,340,300.00	$1,250,000.00	$13,189,000.00
First mortgage bonds.....	400,000.00	4,070,000.00	3,969,000.00
Consol mortgage bonds.....	1,334,000.00	.....	6,031,000.00

Certificates of Ind.:			
June 1, 1891.....	.....	.....	$2,000.00
December 1, 1891.....	.....	.....	3,000.00
December 1, 1894.....	.....	.....	3,937,000.00
Due W. Chicago St. Railroad..	49,158.49	4,869,998.38	.....
Miscellaneous	.....	.....	1,227,252.67
Totals	$3,123,458.49	$10,189,998.38	$28,358,252.67

It will be noticed that the bonded indebtedness of the Chicago Passenger Ry. Co. and of the West Chicago Street R. R. Co. is greater than the value of the property mortgaged to secure its payment, and that while the cost value of the property of the Chicago West Division Ry. Co. is $1,713,713.65 in excess of the bonded indebtedness of that company, this excess falls $3,156,284.73 short of being sufficient to liquidate the claim of the West Chicago St. R. R. Co. for $4,869,998.38 expended for betterments to the property of the Chicago West Division Ry. Co. It will also be noticed that the assets of neither of the three roads are sufficient to pay their bonded and floating indebtedness and leave any residue for the redemption of the capital stock, as will be seen by the following statement:

	Bonds and floating debt.	Cost value of property.	Deficit.
Chicago Passenger Ry. Co.....	$1,783,158.49	$1,677,411.29	$105,747.20
Chicago West Division Railway	8,939,998.38	5,783,713.65	3,156,284.73
West Chicago Street Railroad..	15,169,252.67	13,299,321.25	1,869,931.42
Totals	$25,892,409.54	$20,760,446.19	$5,131,963.35

Add to this the capital stock and we have the total deficit as follows:

	Deficit as above.	Capital stock.	Total deficit.
Chicago Passenger Ry. Co.....	$105,747.20	$1,340,300.00	$1,446,047.20
Chicago West Division Railway.	3,156,284.73	1,250,000.00	4,406,284.73
West Chicago Street Railroad..	1,869,931.42	13,189,000.00	15,058,931.42
Totals	$5,131,963.35	$15,779,300.00	$20,911,263.35

Sec. 10.—Cost of Cable Construction.

As already fully explained on a preceding page, it has been necessary to estimate the detailed cost of the original cable system, built under contract by the U. S. Construction Co., in order to complete the foregoing summary, and as the cost thus incorporated is not conclusive, and at best only approximates the actual cost, it may not be out of place to submit for consideration at this time the following facts upon which the estimate in detail is based:

The lease of October 20, 1887, provided for the construction of "at least 17 miles" of fully equipped and operative cable road, with all the necessary power houses, machinery and equipment. The books of the West Chicago St. R. R. Co. show that $4,000,000 was paid to the U. S. Construction Co. for the system complete, and the payment is represented in the books by the single entry of that amount to the debit of construction account. No details are given in the books, nor have I been able to find on file any schedule of any character from which to make up a list of the property transferred and its cost value, either in detail or bulk.[1] At the same time, such estimates as have been incorporated into this report are approximately correct, and, therefore, do not detract materially from the value of the report itself.

In one sense these estimates are preferable to the records themselves, as the singular fact is presented of Mr. Yerkes disputing the official records of his own company. In other words, the records show that $4,000,000 was paid to the U. S. Construction Co. for the original West Side cable system, whereas Mr. Yerkes states that the actual cost was $7,800,000. Where authorities disagree in this manner, estimates are not only permissible but necessary.

From the records of the engineers' department, I learn that the U. S. Construction Co. built 17.47 miles single track cable road, and from other sources I find that three power houses, with necessary machinery, were also built by that company. Finally, if it is assumed that all the grip cars now in use on the Madison St. and Milwaukee Ave. cable system, or a like number, were originally built by the U. S. Construction Co., practically all the construction work done by that company will be covered.

Subsequently, and without the intermediation of any construction company, the West Chicago St. R. R. Co. built the Blue Island Ave., Halsted and Van Buren St. cable system, the detailed

[1] The absence of any such record does not necessarily imply any irregularity in the accounts of the West Chicago Street Railroad Company, as such details, under the circumstances, would naturally be found only in the books of the U. S. Construction Company, but, as access to these books has been denied, or rather their whereabouts stated to be unknown, and as the information which they contain is absolutely essential to a correct and perfect understanding of the situation, no option is presented but to supply any deficiency in figures with well considered estimates, or else abandon any attempt to arrive at a satisfactory conclusion altogether.

cost of which is clearly set forth in the books of account of that company.

A comparison of the mileage of the two systems referred to shows that 40 per cent. of the total cable lines on the West Side compose the Blue Island Ave., Halsted and Van Buren St. system. This system is operated by two power houses, the cost of which, including machinery, was $665,484.94.

Assuming that the same ratio of power to mileage is required on the section built by the U. S. Construction Co. as on the section built by the West Chicago St. R. R. Co. itself, and that a corresponding ratio obtains in the relative cost of the power plants, the cost of the three power houses and machinery built by the U. S. Construction Co. would be approximately $998,277.81, exclusive of the land, which, under the contract, was to be provided by the R. R. Co.

There is good reason to believe that this is a high estimate and that the actual cost was much less, as a brief description of the several power houses will show.

In the Washington street power house are "two simple, non-condensing engines, 36x60 inches, 1,000 horse power each," to quote from a semi-official publication of the company. One of these engines is held in reserve, while the other operates the Washington street tunnel and State street loop cable.

In the Milwaukee avenue power house are two Corliss engines, 36x72, 1,000 horse power each. Two 20 feet diameter fly wheels, weighing 75,000 pounds each. One of the engines is held in reserve, as in the Washington street power house.

In the Rockwell street power house are two engines, 1,400 horse power each. The same publication referred to above speaks of these three power houses as follows: "The three power houses mentioned above, having been built at the same time, are very similar in design; the one at Rockwell street is almost an exact duplicate of the Milwaukee avenue plant."

In another place this publication refers to the Blue Island avenue power plant, calling particular attention to the fact that "the part of the building where the machinery is located is 116x100 feet," and that "the site was an extremely difficult one on which to erect a heavy building. Quick-sand was encountered and the excavations for the foundations had to be extended 40 feet below the surface of the street. Eight hundred thousand brick, laid in Portland cement, were used in the engine foundations alone. The station is one of the most complete cable plants ever built, and embodies all the improvements that had been made in the other Chicago cable power houses, as well as those of San Francisco, Philadelphia, etc."

Three cables are operated from this power house by "two Allis engines, 40x72 inches each, being rated at 1,800 horse power under steam pressure of 100 pounds. The fly wheels are 24 feet in diameter and weigh 100,000 pounds each."

The Van Buren street power house is rated second to the Blue Island avenue power house by the same publication, having two Allis engines 30x60 inches each,

1,300 horse power, fly wheels weighing 100,000 pounds each and measuring 20 feet in diameter.

It is more than probable that the cost of the last two power houses, viz: $665,484.94, equalled the cost of the other three; the estimate of $998,277.81, however, is consistent with the mileage operated, and does no injustice to the company in an effort to establish the first cost of the original cable plant, since the accounts giving the actual cost are not produced.

The electric plant for the Washington St. tunnel is situated in the Washington St. power house and included in the estimated cost of that structure. No material improvements were made to the tunnel proper by the U. S. Construction Co., beyond the paving and laying of the cable track, all of which cost is included in the cost of the general mileage of 17.47 miles single track cable built by the Construction Co. The actual reconstruction of the tunnel was done in 1892 and 1893, and cost $28,752.96, which was paid for by the Chicago Passenger Ry. Co. independent of the original construction contract of November 17, 1887.

There remains only to estimate the equipment furnished by the U. S. Construction Co. to complete the expenditures made by that company under the construction contract. Of the 258 grip cars now owned by the West Chicago St. R. R. Co., 40 per cent. are doubtless required for the Blue Island Ave. and Van Buren St. system, leaving 155 for the Madison St. and Milwaukee Ave. lines. The cost of grip cars on the Chicago City Ry. Co. in 1882, was $836.58 each, and in 1888 $819.71 each. Assuming the cost in 1890 to have been $800, and that all the grip cars now operated by the Madison St. and Milwaukee Ave. systems, or a like number, were built by the U. S. Construction Co., the cost of 155 would be $124,000.

It is fair to assume that no passenger cars were furnished by the U. S. Construction Co., as I find a charge on the books of the company of $174,188.92 for that purpose; $16,539.20 in 1888, $49,976.71 in 1889, and $107,673.01 in 1890, which, on an average of $731 for open cars and $1,055 for closed cars, would provide 200 new cars, in addition to the 793 cars received from the Chicago West Division Ry. Co. In 1891, $57,789.77 was paid out for new cars, and in 1892 $345,630.60, all independent of any cars that may have been furnished by the U. S. Construction Co.

Comparing the mileage and traffic of the company to-day and its 1,865 cars with the mileage and traffic in 1890, the 993 cars accounted for above were amply sufficient to operate the road at that time.

Deducting the estimated cost of the power house and machinery and equipment ($1,122,277.81) from the total $4,000,000 paid under the contract, leaves $2,877,722.19 to cover the cost of the 17.47 miles single track cable road built, which would be at the rate of $164,723.65 per mile. That this is greatly in excess of the cost actually incurred by the U. S. Construction Co. may be inferred from several facts that are clearly established by the records of the several companies.

(1) The actual cost of the 17.898 miles of cable road on the South Side, north of 39th St., including the down-town loop, was $1,470,868.27, or at the rate of $82,180.60 per mile.

(2) Six miles of single track cable road extension subsequently built on State St. south of 39th St. cost $330,042.82, or at the rate of $55,006.80 per mile, and 9.687 miles single track cable extension south on Cottage Grove Ave. cost $575,408.63, or $59,400.09 per mile.

(3) The actual cost of the 11.655 miles single track cable road constituting the Blue Island Ave., Halsted and Van Buren St. line, including the Adams St. loop, was $1,124,188.06, or at the rate of $96,455.43 per mile, according to the books of the West Chicago St. R. R. Co.

(4) The State St. loop extension of the West Chicago St. R. R. Co. cost $88,405.56, or at the rate of $139,221.37 per mile, and the cost of the 0.667 mile single track cable road built by the Chicago City Ry. Co. in the construction of its new loop on Michigan Ave. was $57,025.71, or at the rate of $85,495.82 per mile.

(5) The contract price for the construction of the 4.459 miles single track cable road on Clybourne Ave. from the termius near Fullerton Ave. to Division St., and on Division St. to the junction with the cable line on Wells St., at that point, including an underground conduit from that point continuing on Division St. to North Clark St., and thence South, connecting with the power house on North Clark St., was $500,000. Making no allowance for the 4,000 lineal feet of cable conduit, but apportioning the entire sum to the

4.459 miles single track cable road, makes the average cost per mile $112,132.77. This contract was taken by the U. S. Construction Co.

If a comparison of the cost of the different sections of cable road referred to above does not prove conclusively that the actual cost of the 17.47 miles single track cable road built by the U. S. Construction Co. for the West Chicago St. R. R. Co. was less than $164,723.65 per mile, the contract price, it at least shows that the cost was not $6,677,722.19, or $382,240 per mile single track, which would be the rate per mile if $7,800,000 was the actual cost of the system, according to Mr. Yerkes.

To show more clearly the extreme improbability that $382,240 was the actual cost per mile, it is only necessary to call attention to the fact that at that rate one average mile of cable road on the West Side cost $52,197.18 more than the six miles of cable road on State St. South of 39th St.; more than six times as much per mile as the cable road on Cottage Grove Ave. south of 39th St.; nearly five times as much per mile as the first experimental section of cable road built in Chicago, with all the subsequent expenditures for changes and improvements to bring it up to its present degree of efficiency; more than four times as much per mile as a road of a precisely similar character built according to the same specifications by the West Chicago St. R. R. Co. itself; $100,000 per mile more than the State St. loop extension built by the same company; and nearly five times as much per mile as the Michigan Ave. loop extension of the Wabash Ave. line, both of which extensions, because of their location in the business district, where the sewer, gas and water pipe obstructions are the greatest, show a cost of construction much greater than in outlying sections of the city; finally, $82,000 per mile more than the *contract* price with the same Construction Company for the construction of the entire cable system on the North Side, including all power houses and machinery, the construction of the Wells St. and Clark St. bridges, and the reconstruction of the Dearborn St. bridge and La Salle St. tunnel, etc., etc.[1]

[1] Reference might also be made to the following answer of the West Chicago Street Railroad Company to an inquiry of the Civic Federation as to the cost per mile of their cable road, to-wit: "Estimated cost per mile of track (cable), including rails, conduits, pulleys, vaults, and necessary machinery for operating the same, $75,000 single track."

Of the entire 17.47 miles single track cable road built by the U. S. Construction Co. only 1.23 miles were West Chicago St. R. R. Co. mileage, the balance being 2.836 miles Chicago Passenger Ry. Co. and 13.404 miles Chicago West Division Ry. Co.

Sec. 11.—Construction Charges in Detail.

The total charges to construction account between October 20, 1887, and December 31, 1894, or prior to the introduction of the trolley system, aggregated $7,002,390.87, divided as follows:

17.47 miles single track original cable system, including buildings, machinery, equipment, etc., built by U. S. Construction Company, $4,000,000, divided as follows:	
13.404 miles Chicago West Division Railway Company	$2,207,955.82
2.836 miles Chicago Passenger Railway Company	466,056.28
1.230 miles West Chicago Street Railroad Company	203,710.09
17.470 miles. Total at $164,723.65	$2,877,722.19
Three power houses and machinery	998,277.81
155 grip cars	124,000.00
Total	$4,000,000.00

As already explained the agreement of March 15, 1889, with the Chicago Passenger Ry. Co. stipulates that the cost of converting the 2.836 miles old horse track of the Chicago Passenger Ry. Co. into cable road was to be paid by the West Chicago St. R. R. Co., so that of the total $4,000,000 paid to the U. S. Construction Co. under the original cable contract $1,792,044.18 was chargeable to the West Chicago St. R. R. Co. and $2,207,955.82 to the Chicago West Division Ry. Co.

Taken in connection with their answer to a more general inquiry as to the cost of all building and equipping of new lines and extension, to-wit: "It is impossible to give statement as asked for itemized, as the construction and equipping of new lines has been charged to the general construction account," would seem to indicate that the officials of the West Chicago Street Railroad Company have apparently no clearly defined idea themselves as to the actual cost value of their property, or at least have not yet fully determined upon a uniform answer to all inquiries.

Their estimate of $75,000 per mile for cable road, while more reasonable than the contract price of $164,723.65 or the price indirectly stated by Mr. Yerkes, $382,240, is unreliable and of no more value than their estimate of the average cost of trolley road, to-wit: "Estimated cost per mile of track (electric), including rail construction, bonding, poles, and all necessary wiring, together with a complete feeder system and necessary underground electric conduits, $50,000 single track," as the books themselves show that the cost to construct the latter kind of road is less than half their estimate. Elsewhere in this report reasons are fully set forth why the actual cost per mile single track of the Blue Island avenue and Halsted street and Van Buren street lines, to-wit: $96,455.43, should be accepted as a safe estimate of the cost of the Madison street and Milwaukee avenue cable lines, and that amount has been adopted as the approximate cost per mile of the cable road, built by the U. S. Construction Company, in preparing the final schedule of the cost value of the existing property of the company.

Subsequently 0.635 mile single track cable road was built at a cost of $88,405.56, or at the rate of $139,221.27 per mile, and 11.655 miles single track at a cost of $1,124,188.06, or at the rate of $96,455.43 per mile, and charged as follows:

0.314 mile Chicago Passenger Railway Company	$43,715.51
0.321 mile Chicago West Division Railway Company	44,690.05
11.655 miles Chicago West Division Railway Company	1,124,188.06
Total	$1,212,593.62

56.676 miles single track horse road was also built as follows:

4.396 miles Chicago Passenger Railway Company	$104,737.66
1.96 miles Chicago West Division Railway Company	46,698.51
50.32 miles West Chicago Street Railroad Company	1,132,178.36
Total	$1,283,614.53

During the same period there was also charged into construction account, as already stated, the following items:

Taylor street bridge	$100,000.00
Taylor street viaduct	7,654.55
Halsted and Kedzie street viaducts	2,427.88
Ogden avenue	7,861.90
Madison street new steel rails and asphalt	52,376.18
Franchise petitions	207,321.37
Interest and discount on bonds	128,540.84
Total	$506,182.72

To recapitulate, the $7,002,390.87 charged to construction account between October 20, 1887, and December 31, 1894, as stated above in detail, was on the following accounts:

Chicago Passenger Railway Company	$148,453.17
Chicago West Division Railway Company	3,423,532.44
West Chicago Street Railroad Company	3,430,405.26
Total	$7,002,390.87

Subsequently there was charged to construction account $2,605,296.60 on account of the construction of 173.555 miles single track electric roads, including the conversion of old horse roads into electric roads, as follows:

2.01 miles Chicago Passenger Railway Company at $24,204.17	$48,650.00
26.575 miles Chicago Passenger Railway Company at $18,573.46	493,589.00
28.585 miles total Chicago Passenger Railway	$542,240.00
25.970 miles West Chicago Street Railroad Company at $18,573.46 (estimated)	482,352.00
54.555 miles total new electric road	$1,024,592.00

119.00 miles single track horse road converted into electric road at $11,985.48 per mile, $1,426.272.49, divided as follows:

68.68	miles Chicago West Division Railway Company	$825,163.04
50.32	miles West Chicago Street Railroad Company	601,109.45
119.	miles. Total	$1,426,272.49

Into the same account was also charged $154,431.28 for interest and discount on bonds.

Following is a summary of the total charges to construction account down to December 31, 1897:

Account Chicago Passenger Railway Company	$690,693.24
Account Chicago West Division Railway Company	4,248,695.48
Account West Chicago Street Railroad Company	4,668,298.75
Total	$9,607,687.47

It will be noticed that of the total expenditures to December 31, 1897, it has been necessary to estimate only the cost of 25.970 miles of new trolley road built for the Chicago West Division Ry. Co. The basis for this estimate is the rate per mile for road of a precisely similar character built in the same year for the Chicago Passenger Ry. Co. and made the subject of arbitration, as fully set forth elsewhere in this report.

Deducting the amount named in this report of the arbitrators as chargeable to the Chicago Passenger Ry., to-wit: $542,240.07, and the amount estimated above for the 25.970 miles of road chargeable to the Chicago West Division Ry. Co., also the item of $154,431.28 for interest on bonds, leaves a balance of $1,426.272.49 out of the total $2,605,296.60, to cover the cost of converting 119 miles of horse road into trolley, which would be at the rate of $11,-985.48 per mile.

As this rate is approximately the cost per mile of similar roads on the North and South side lines, *exclusive of paving*, it is assumed that in the conversion of the 119 miles of horse road mentioned the old pavement already down was allowed to remain, and thus its original cost value became incorporated into the total cost value of the complete trolley road of the present day, and showing the cost of the West Side trolley road as follows:

2.01	miles single track at	$24,204.17	$48,650.39
26.575	miles single track at	18,573.46	493,589.68
68.68	miles single track at	18,006.10	1,236,658.97
25.97	miles single track at	18,573.46	482,352.76
50.32	miles single track at	17,148.08	862,891.20
173.555	miles, average at	$18,000.88	$3,124,143.00

Sec. 12.—Mileage of West Side Lines.

Chicago Passenger Railway—	Miles, S. T.
Horse road at date of lease, November 16, 1888	29.79
New horse road built by West Chicago Street Railroad Company for account of Chicago Passenger Railway Company since lease, November 16, 1888	4.40
Chicago West Division Railway—	
Horse road at date of lease, October 20, 1887	98.45
New horse road built by West Chicago Street Railroad Company for account of Chicago West Division Railway since lease, October 20, 1887.	1.96
West Chicago Street Railroad—	
New horse road, built since lease, October 20, 1887	50.32
New cable road	1.23
New electric road	25.97
Total	212.12

Since the lease of October 20, 1887, the following changes have been made in the character of the roads included in the above mileage, viz:

Chicago Passenger Railway—	Miles, S. T.
Original horse road	29.79
Converted into cable road	3.15
Converted into electric road	24.185
Transferred to Chicago City Railway, Madison to Washington streets on Michigan avenue	0.075
Horse road still remaining	2.38
Chicago West Division Railway—	
Original horse road	98.45
Converted to cable roads	25.38
Converted to electric roads	66.72
Transferred to Chicago City Railway, to State on Lake (450 ft.)	
Horse road still remaining	6.26
West Chicago Street Railroad Company—	
New horse road, built since the lease of October 20, 1887 and afterward converted into electric road	50.32
New horse road built for account of West Division Railway since lease, October 20, 1887, afterward converted into electric road	1.96
New horse road built for account of Chicago Passenger Railway since lease, October 20, 1887, afterward converted into electric road	4.40
Add new cable road built	1.23
Add new electric road built	25.97
Total	406.190

If from the above totals is deducted the 860 feet of single track road transferred to the Chicago City Railway and to the remainder is added 457 feet of double track or 914 feet of single track road acquired from the North Chicago Street Railroad and already referred to in the exhibit as forming part of the existing mileage of the West Chicago Street Railroad the remainder will be 1,120,044.2 feet, or 212.13 miles, single track, distributed as follows:

	Feet single track.	Miles single track.
Cable road	157,131.	29.76
Electric road	917,291.6	173.73
Horse road	45,621.6	8.64
Total	1,120,044.2	212.13
Van Buren street tunnel	3,306.9	.63
	1,131,351.1	212.76

The electric line from Armitage avenue to Logan Square, on Milwaukee avenue (5,684 feet double track), was built by the West Chicago Street Railroad Company, but is now being operated by the North Chicago Electric Railway Company and is therefore not included in the above mileage. The 3,309.9 feet of track of Van Buren street tunnel, although built by the Tunnel Company, is practically a part of the West Chicago Street Railroad Company and is therefore included. Four hundred and fifty-seven feet of double track on Fifth avenue, from Lake street to Randolph street, is included in the above mileage, although originally built by the North Chicago Street Railroad Company.

BIBLIOGRAPHICAL INDEX.

The following subject index is intended to continue the work begun in the first number of MUNICIPAL AFFAIRS. The March, 1901, issue was entirely devoted to "A Bibliography of Municipal Problems and City Conditions," which contained all of the indices previously published, revised, re-arranged and made complete to January 1, 1901. So far as possible, all books, pamphlets, reports and magazine articles of interest to students of city government which have appeared in the last five months—prior to June 1, 1901—are included in the following list. Future numbers will contain similar indices for each preceding quarter.

In the arrangement of the references, the following plan has been adopted: All relating to any one city have been grouped under that city. Thus, references on Sewage Disposal in Berlin are found under **Berlin,** subhead Sewage Disposal. The same is true as to countries. The references to Water Supplies in the United States, for instance, are under **United States,** subhead Water Works. In each case, cross references to the city and country have been placed under the main topic. Thus, for example, immediately following the head **Lighting** there is a list of the cities and countries under which is found additional material on lighting, but which is not general in character, relating only to the city or country referred to.

Upon classifying the material according to this plan, a small number of unclassifiable titles are found which resist every device of the bibliographer's art, titles referring neither to any particular city, nor country, nor single topic. These, together with the important general works, have been given special prominence by being grouped at the beginning of the Index under the rubric **City Government, General and Unclassified.** A similar plan has been followed in each country and city.

City Government, General Works and Unclassified.

Administratice Law. "Traité Elémentaire de Droit Administratif." Berthélemy, H. Paris, 1901. 8vo, 936 pp. 12 fr. 50c.

"Commercialism and Corruption." Myers, Gustavus. Ind. 53:139 (Jan. 17, 1901).

"Municipal Government—The Cause and the Remedy." Cleveland, Harlan. Public Policy 4:182 (Apr. 6, 1901).

"Municipal Politics." Gunton's 20:47 (Jan. 1901).

"Talks on Civics." Holt, Henry. New York, Macmillan Co., 1901. 12mo, 493 pp. Cl. $1.25.

"The City and Its Suburbs." Pratt, Dana J. Worcester M. 1:289 (May, 1901).

Accounting, Municipal. (See under **Finance.**)

Acetylene. (See **Lighting.**)

"**Albany, N. Y.,** A Filtration Plant at." Webber, William O. Trans. Am. Soc. Mech. Engs. May, 1901.

Allotments. (See **Vacant City Lots, Cultivation of.**)

"**Altoona, Pa.,** The Intermittent Filter Beds of." Giles, E. F. Pp. 53-67 in "Pro. 1st Conv. L. of Pa. Cities, York, 1900."

"**Amsterdam,** Electrical Works in." Hill, Frank D. Cons. Rep. 65:299 (March, 1901).

Architecture. (See **Building Laws.**)

"**Arkansas,** City Government in." McLean, Simon J. Ann. Pol. Sci. 17:528 (May, 1901).

Art, Municipal. (See also **Architecture, Building Laws, Parks.**)

See Washington.

Art in Cities. Fiérens-Gevaert, H. R. Universelle, Jan. 26, 1901.

"Making Stations Attractive." Howland, D. B. World's Work 1:517 (March, 1901).

"Municipal Art." Graves, Elma. Am. J. Sociol. 6:673 (March, 1901).

"Municipal Art as an Investment." Garland, Hamlin. World R. 1:208 (May 4, 1901).

"Our Heritage of the Picturesque." Hall, E. Hagaman. Mun. Aff. 5:349 (June, 1901).

"Practical Possibilities of Municipal Art." Jastrow, Joseph. Municipality 2:25 (June, 1901).

"Railroad Gardening." Seavey, Frances Copley. Park & Cem. 11:50 (May, 1901).

"The Grouping of Public Buildings in a Great City." Walker, C. Howard. Am. Arch. 71:11 (Jan. 12, 1900).

"The How of Improvement Work." Good, Jessie M. Home Florist 4:1 (Jan., 1901).

"The Improvement of Towns and Cities, or the Practical Basis of Civic Aesthetics." Robinson, Charles Mulford. New York, Putnam's Sons, 1901. 12mo, 309 pp. Cl. $1.25.

"The Town Beautiful." Shinn, Charles H. Park & Cem. 11:32 (Apr., 1901).

Asphalt Paving. (See **Pavements, Paving.**)

Assessments, Special. (See **Finance.**)

"**Babylon** Water Supply Plant, The." Engng. Rec. 43:28 (Jan. 12, 1901).

Baltimore, Md.

"Charter, Baltimore's New City." Reynolds, William. Worcester M. 1:43 (Jan. 1901).

"City Controlled on a Business Basis, The." Hayes, Thomas G. Ind. 53:479 (Feb. 28, 1901).

"Street Cleaning in Baltimore." Iglehart, Paul. Mun. J. & E. 10:89 (March, 1901).

Baths, Laundries and Lavatories, Public. (See also **Public Comfort Stations.**)

See Buffalo, Liverpool, London.

"Municipal Public Baths in England and the United States." Lloyd, Caro. Ind. 53:29 (Jan. 3, 1901).

Battersea. (See **London.**)

Belgium, Communal Taxes in. "Les Impôts communaux en Belgique. Traité théorique et pratique. Principes généraux, législation, jurisprudence." Dupont. H. Paris, Larose, 1901. 8vo. 10 fr.

Betterment. (See Assessments, Special, under **Finance.**)

Berlin.

Housing Question in Berlin, Ground Rents and the. "Grundrente und Wohnungsfrage in Berlin und seinen Vororten. Geschichte und gegenwärtiger Stand." Voight, P. Jena, G. Fischer, 1901. 8vo, 200 pp. 6m.

"Rise of Berlin, The." Whitman, Sidney. Harper's M. 102:779 (Apr., 1901).

"Sewage Disposal and Water Supply." McLean, W. A. Mun. W. (Sup.) Vol. II., No. 5, p. 9 (May, 1901).

Street Traffic, Berlin. Ueber Land und Meer, Heft 8 (1901).

Transit Facilities. Electric Operation of the Berlin "Ringbahn." "Der Elektrische Betrieb auf der Berliner Stadt und Ringbahn." Schimpff; Kübler. Glasers Ann. Apr. 1, 1901.

——. "Street Railway Franchises in the City of Berlin." James, Edmund J. J. P. E. 9:260 (March, 1901).

——. "Tramways at Berlin." Mun. J. 10:65 (Jan. 25, 1901).

Birmingham, Eng.
Water Supply. "How the Welsh Water Will Come to Birmingham." Webber, W. H. Y. Pall Mall 24:181 (June, 1901).

Bonds, Municipal. (See under **Finance.**)

Boston, Mass.
Finance. "Report Upon * * Boston * * Special Assessments * During Past Ten Years." Chase, Harvey S. Boston, Municipal Printing Office, 1901. 8vo, 52 pp.
Garbage Disposal. "Utilizing Boston's Refuse." Morse, W. F. Mun. J. & E. 10:117 (Apr., 1901).
"Paving in Boston." Gore, F. S. St. Ry. R. 11:283 (May 15, 1901).
Police. "Boston, A Plain-Clothes Man's Town." Flynt, Josiah. McClure's 17:115 (June, 1901).
Sewage Disposal. "Report of the Massachusetts State Board of Health Upon the Discharge of Sewage Into Boston Harbor." Goodnough, X. H. Boston, Wright & Potter Printing Co., 1901. 8vo, 100 pp.
Transit Facilities. East Boston Subway and Tunnel. Ry. & Engng. R. Feb. 16, 1901; Engng. N. 45:242 (Apr. 4, 1901).
——. "Boston's New Subway." Winslow, Willard. Mun. Aff. 5:527 (June, 1901).
——. "New Power Station and Elevated Railway System in Boston." St. Ry. J. 17:253 (March 2, 1901).
"Water Works, Boston, The Weston Aqueduct of the Metropolitan." Flinn, Alfred D. Engng. Rec. 43:418 (Apr. 23, 1901).

Bournville, Eng. "A Great Housing Experiment." Mun. J. 10:207 (March 22, 1901).

"**Bradford** [**Eng.**] Electric Lighting." Mun. J. 10:359 (May 17, 1901).

"**Brent** [**Eng.**] Sewage Problem and Its Solution." Butler, William. Surveyor 19:597 (May 17, 1901).

Breslau. Housing. "Die Wohnungsverhältnisse in Breslau." Honigmann, Paul. Pp. 249-286, Hft. 31. Schr. d. Vereins f. Socialpolitik.

Bristol, Eng. "Municipal Canals." Mun. J. 10:228 (March 29, 1901).

Brooklyn. (See under **New York City.**)

"**Brussels,** Tramways in." Mun. J. 10:25 (Jan. 11, 1901).

"**Budapest,** Tramways in." Mun. J. 10:403 (May 31, 1901).

Buffalo, N. Y.
"Baths, Free Municipal." Mun. J. 10:379 (May 24, 1901).
"Pavements in Buffalo, Repairs to Asphalt." Engng. Rec. 43:12 (Jan. 5, 1901).
——. "A Brief History of Asphalt Pavements in Buffalo." Malcolm, James. Buffalo "Courier," 1901. 8vo, 24 pp.
"Water Works System of the Pan-American City." Mun. J. & E. 10:195 (June, 1901).

"**Calcutta,** Sewage Disposal in." Silk, A. E. San. Rec. 27:2, 22, 65 (Jan. 4, 10, 24, 1901).

"**California,** A New Act Regarding Franchises in." St. Ry. J. 17:359 (March 23, 1901).

"**Canada,** Development of Street Railways in." Ross, W. G. St. Ry. R. 11:30 (Jan. 15, 1901).

Carlsbad, The Finances of. "Le Système Fiscale d'une Ville d'Eaux." Marcé, Victor. Ann. Sci. Pol. 16:470 (July, 1901).

Charities, City. (See also **Church and Municipal Conditions, Settlements, Unemployed in Cities).**
See United States.

"Boy Rough and Town Life, The." Char. Or. R. 9:177 (Apr., 1901).
"Cities and Citizens." Sutter, J. London, Marshall, 1901. 8vo, 6s.
"Hospital Abuses in Continental Towns." Char. Or. R. 9:25 (Jan., 1901).
——. "Municipal Consumption Hospitals." Mun. J. 10:402 (May 31, 1901).
Organization. "Organisation de la Bienfaisance Publique." Bertrand, L. L'Avenir Social 6:32 (Jan. 1901).
"Public and Private Charity." d'Haussonville, Comte. R. Mondes Dec. 15, 1900.

"**Charleston, S. C.,** Municipal Improvements at." Engng. N. 45:23 (Jan. 10, 1901).

"**Chattanooga, Tenn.,** Municipa Improvements at." Engng. N. 45:162 (March 7, 1901).

Chicago, Ill.

"Greater Chicago—A Governmental Problem." Gray, John Henry. World R. 1:141, 176 (Apr. 6, 13, 1901).
"The Opportunity of Chicago to become a Great City." James, Edmund J. World R. Vol. I, No. 3, p. 10 (March 23, 1901).

——

Crime. "Juvenile Delinquencies in the Sixteenth Ward of Chicago." Sheldrake, Edna. World R. 1:236 (April 27, 1901).
Finance. "The Municipal Accounts of Chicago." Haskins, Charles Waldo. Business 21:169 (May, 1901), Mun. J. & E. 10:211 (June, 1901).
Liquor Problem. "The Saloon in Chicago." Melendy, Royal L. Am. J. Sociol. 6:433 (Jan. 1901).
Municipal Electric Lighting in Chicago. Ellicott, Edward B. Pp. 56-58 in "Pro. 4th Conv. L. Am. Mun. Dec., 1900, Mun. Engng. 20:33 (Jan. 1901), Engng. Rec. 43:176 (Feb. 23, 1901), Public Policy 4:139 (March 16, 1901), Engng. N. 45:317 (May 2, 1901).
"Settlement Work in the Stock Yards." McDowell, Mary E. World Review 1:330 (June 1, 1901).
Sewage Disposal. "The Improvement of the Chicago River." J. W. Soc. Engs. 6:1 (Feb., 1901).
——. "Design for a Controlling Works at the Chicago End of the Drainage Canal." Guthrie, Ossian. J. W. Soc. Engng. 6:42 (Feb. 1901).
——. "Expert Commission's Plans for Increasing the Flow through the Chicago Drainage Canal." Engng. N. 45:245 (Apr. 4, 1901).
Street Cleaning. "Suggestions on the Problem of Cleaning the Streets of Chicago." Selfridge, Harry G. Chicago, City Homes Assn. 1901. 8vo, 12 pp. Free.
"Sweating System in the Garment Trades of Chicago. Some Phases of the." Auten, Nellie Mason. Am. J. Sociol. 6:602 (March, 1901).
Transit Facilities. "Report of the Street Railway Commission to the City Council of Chicago." St. Ry. J. 17:110 (Jan. 19, 1901).
——. "Street Railways of Chicago; Analysis of Financial Operations." Maltbie, Milo Roy. Mun. Aff. 5:541 (June, 1901).
——. "Accountant's Report." Bard, Edmund F. Mun. Aff. 5:484 (June, 1901).
——. "The Street Car Situation in Chicago." James, Edmund J. World R. Vol. 1, No. 2, p. 10 (March 16, 1901).
——. "What Should be the Street Car Policy of Chicago for the Immediate Future?" James, Edmund J. World R. 1:106 (March 30, 1901).

Child Problem in Cities. (See **Charities.**)

Cincinnati, O.

Finance. "An Object Lesson in Inefficient Administration of Public Funds." Woodard, J. H. Public Policy 4:17 (Jan. 12, 1901).
"Water Supply of Cincinnati, O., The New." Engng. N. 45:371 (May 23, 1901).

"**Cleveland's** Famous Mayor." Bemis, Edward W. Mun. J. & E. 10:204 (June, 1901).

Columbus, Ga.

"Parking Streets in Columbus, Ga." Johnson, R. L. Engng. Rec. 43:471 (May 18, 1901).

Columbus, O.

"Sewer Maintenance in Columbus, Ohio." Lilly, George W. Engng. Rec. 43:395 (Apr. 27, 1901).

Connecticut.

"Sewage Disposal, The Connecticut Sewerage Commission on Methods of." Engng. Rec. 43:274 (Mar. 23, 1901).

——. "Stream Pollution, Sewerage and Sewage Disposal in Connecticut." Ford, F. L.; Jackson, J. Frank. Engng. N. 45:51 (Jan. 17, 1901).

Constantinople, Water Supply of. "Die Wasserversorgung von Konstantinopel." Gruner, H. Gesund. Ing. April 30, 1901.

Copenhagen. Housing. "Les Habitations ouvrières en Danemark et principalment de Copenhague." Trap, Cordt; Schmidt, Olaf. Paris, Société fr. d. Habitations à bon marché, 1900. 8vo, 51 pp.

Councils and Boards of Aldermen. (See also **Mayor.**)

See United States.

Cultivation of Vacant City Lots. (See under **Vacant City Lots.**)

"**Darwen** [Eng.] Electric Tramways and Refuse Destructor." Ty. & Ry. W. 10:60. (Feb. 7, 1901).

Day Labor and Contract System. (See **Labor and Its Relation to the Municipality.**)

Debts and Loans, Municipal. (See under **Finance.**)

Detroit, Mich.

"How to Make Detroit Grow." Ingram, Frederick F. Public Policy 4:108 (March 30, 1901).

"Parks and Boulevards of Detroit." Coryell, R. J. Mun. J. & E. 10:99 (March, 1901).

Direct Employment. (See **Day Labor and Contract System.**)

"**Dublin** Tramway Company." Murphy, William M. Ty. & Ry. W. 10:154 (March 7, 1901).

"**Dudley** [Eng.] Corporation Electricity Supply." Surveyor 19:87 (Jan. 25, 1901).

"**Düsseldorf,** The Model City of." Mun. J. 10:3, 43 (Jan. 4, 18, 1901).

Elections, Ballot Reform in Cities. (See also under **Proportional Representation, Parties and Party Politics.**)

See New York, Philadelphia.

"Plan for Caucus Nominations in City Elections." Worcester M. 1:243 (Apr., 1901).

"Primary Election Laws." Wilder, Amos Parker. Pp. 212-225 "Pro. Milwaukee Conf." Philadelphia, National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

Separation of Elections. "The One Need in Our Cities." Farquhar, A. B. Pp. 68-72 in "Pro. 1st Conv. L. of Pa. Cities, York, 1900."

Electric Lighting. (See **Lighting.**)

Electrolysis.

See Washington, United States.

"Cause and Effect of Electrolytic Action upon Underground Piping Systems." Knudson, A. A. J. N. E. W. W. Assoc. 15:244 (Mar., 1901).

"Damage to Gas Mains by Electrolysis." J. Gas Ltg. 77:344 (Feb. 5, 1901).

"Electrolysis." Herrick, Albert B. St. Ry. R. 11:36 (Jan. 15, 1901).

"Electrolysis of Water and Gas Pipes." Brigden, W. W. Mun. Engng. 20:287 (May, 1901).

"Electrolytic Corrosion of Underground Pipes Discussed." Prog. Age 19:127 (Mar. 15, 1901).

"Electrolytic Effect of Stray Trolley Currents." McGowan, H. E. Prog. Age 19:212 (May 15, 1901).

Elevated Railways. (See **Transit Facilities.**)

Engineering, Municipal. (See also under **Conduits, Electrolysis, Garbage Disposal, Sanitation. Sewage Disposal, Streets, Transit Facilities, Water, Etc.**)

See Charleston, Chattanooga, Havana, United Kingdom.

"Municipal Public Works." Chap. 24 in "Talks on Civics." Holt, Henry. New York, Macmillan Co., 1901. 12mo. 493 pp. Cl. $1.25.

"Municipal Public Works." M'Cullough, Ernest. Lewiston, Idaho, Author, 1900. 8vo, 153 pp. Paper 50c.

"The Position of the Engineer in Municipal Service." Dow, Alex. Public Policy 4:307 (May 25, 1901).

England. (See **United Kingdom.**)

Excise. (See **Liquor Problem in Cities.**)

Exeter, Eng.

"The Oldest Town Hall in England." Mun. J. 10:283 (Apr. 19, 1901).

Finance.

See Belgium, Carlsbad, Chicago, Cincinnati, Illinois, Michigan, Paris, San Francisco, United Kingdom, United States, Wisconsin.

"Accounting, Municipal." Macpherson, F. H. Detroit, Mich., Book-Keeper Publishing Co., 1901. 8vo, 46 pp.

——. "Municipal Accounting." Vollum, Charles M. Pp. 64-68 in "Pro. 1st Conv. L. of Pa. Cities, York, 1900."

——. "Report of the Committee on Uniform Municipal Accounting, League of California Municipalities." Breed, A. H. Public Policy 4:70 (Feb. 9, 1901).

——. "Uniform Accounting and State Examination of Public Accounts." Henderson, Harry B. Pp. 247-256 "Pro. Milwaukee Conf." Philadelphia, National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

——. "Uniform Municipal Accounting." Baker, M. N. Pp. 239-242 in "Pro. of Milwaukee Conf., 1900, N. M. League;" Cahoon, James Blake. Pp. 243-246 in "Pro. of Milwaukee Conf., 1900, N. M. League," Public Policy 4:68 (Feb. 9, 1900); Foote, Allen Ripley. Public Policy 4:106, 194 (April 6, Mar. 2, 1901); Henderson, H. B. Pp. 70-73 in "Pro. 4th Conv. L. Am. Mun. Dec., 1900," Public Policy 4:8 (Jan. 5, 1901), Prog. Age 19:57 (Feb. 1901).

Special Assessments. "Theory and Practice of Levying Assessment for Benefit." Lewis, N. P. Municipality Vol. 1, No. 6, p. 28 (Feb. 1901).

Taxation. "Local Option Taxation." Broomhall, A. F. Public Policy 4:178 (Apr. 6, 1901).

——. "Taxation of Land Values." McCrea, G. Chambers' 4:33 (Jan. 1901); anon. Mun. J. 10:63 (Jan. 25, 1901).

——. "Taxation of Telephone Companies." Elec. W. & E. 37:443 (March 16, 1901).

——. "The Best Method of Taxation and Assessment in Municipalities." Purdy, Lawson. Pp. 41-44 in "Pro. 4th Conv. L. Am. Mun. Dec. 1900," Public Policy 4:21 (Jan. 12, 1901).

——. "The Best Method for the Assessment and Collection of Taxes and the Limitation on the Taxing and Debt-Creating Powers of Municipalities." Weakley, John B. Pp. 35-40 in "Pro. 4th Conv. L. Am. Mun. Dec. 1900."

"Valuation of City Real Estate for Taxation." Somers, W. A. Mun. Aff. 5:401 (June, 1901).

Fires, Municipal Fire Departments, Insurance, Etc. (See also **Building Laws**).

See Wisconsin.

"Fire Telephones." Mun. J. 10:251 (Apr. 5, 1901).

France.

"Housing and Overcrowding in France." Connor, E. Land M. Dec. 1900.

Local Government in France. "Le Gouvernement Local en France et l'Organization du Canton." Bellangé, Charles. Paris, Didier, 1900. 8vo, 465 pp. 9f.

"Municipal Socialism in France." Siegfried, André. Ann. Pol. Sci. 17:537 (May, 1901).

——. Socialistic Cities. "I Socialisti commune in Francia." Labriola, Arturo. Critica Sociale 10:41 (Feb. 1, 1901).

Transit Facilities. Economy of Electric Traction. "Resultats Economiques de la Substitution de la Traction Electrique à la Traction Animale." Jean, Charles. Génie Civil Mar. 30, 1901.

Franchises, Municipal. (See under **Municipal Control, Municipal Ownership and Finance.**)

Fulham, Eng.

Garbage Disposal. "Dust Destruction and Lighting at Fulham." Lightning Feb. 14, 1901.

"Lighting, Fulham Electric." Mun. J. 10:21 (Jan. 11, 1901).

Garbage and Refuse Disposal. (See also **Sewage Disposal, Streets.**)

See Boston, Fulham (Eng.), Indianapolis, Lafayette (Ind.), Salford, Wisconsin. consin.

"Refuse Disposal in the Twentieth Century." Watson, G. San. Rec. 27:92 (Jan. 31, 1901).

"Some Financial, Political and Sanitary Phases of Garbage Disposal." Engng. N. 45:120 (Feb. 14, 1901).

"Steam Power from City Waste." Morse, W. F. Mun. J. & E. 10:90 (March, 1901).

——. "Combined Refuse Destructors and Power Plants." Russell, Charles N. Engng. Rec. 43:34 (Jan. 12, 1901).

——. "Garbage as Fuel for Steam Production.' Hedenberg, W. L. Mun. Engng. 20:140 (March, 1901).

——. "Some Facts and Figures Relative to the Utilization of Refuse for the Generation of Electricity.' Brookman, F. W. Rochdale, Eng., 1901. 8vo, 16 pp. Pamphlet.

——. "The Town Refuse Problem and Its Relation to Steam Production." Maxwell, W. H. Feilden's M. Apr., June, 1901.

"The Disposition of City Waste." Fritchard, E. R. Dom. Engng. Dec. 20, 1900.

Gas. (See **Lighting.**)

Germany.

Housing Inspection in Germany. "Wohnungsinspektion und ihre Ausgestaltung durch das Reich." v. d. Goltz, Hans Freiherrn. Göttingen, Vandenhoeck & Ruprecht, 1900. 8vo, 104 pp. 1.50m.

——. "Housing in Prussia." Mun. J. 10:266 (Apr. 12, 1901).

Municipal Government in Germany. "Die deutsche Städteverwaltung. Ihre Aufgaben auf den Gebieten der Volkshygiene, des Städtebaus und des Wohnungswesens." Hugo, C. Stuttgart, J. H. W. Deitz, 1901. 8vo, 512 pp. 10m.

Lighting. "Technical Instruction in German Gas Works." Prog. Age 19:98 (March 1, 1901).

Transit Facilities. "Notes from Germany." St. Ry. J. 17:496 (Apr. 27, 1901).

——. Statistics of Electric Tramways. "Statistik der Elektrischen Ballnen in Deutschland." Elektrotech. Zeit. 22:119 (Feb. 7, 1901).

Glasgow.

"A City for the People." Bemis, Edward W. Pilgrim Vol. II, No. 11, p. 8 (June, 1901).

"Government of the City of Glasgow, The." Lazenby, Albert. Pp. 199-211 "Pro. Milwaukee Conf." Philadelphia, National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

Transit Facilities. "The Glasgow Tramways System." Mun. J. 10:305 (Apr. 26, 1901).

Great Britain. (See **United Kingdom.**)

Growth of Cities. (See under **Population.**)

"**Hale [Eng.]**, Sewage Disposal at." Surveyor 19:261 (March 1, 1901).

"**Hamburg**, Tramways in." Mun. J. 10:45 (Jan. 18, 1901).

"**Hamilton, Ontario**, Tar Macadam as Used in." Warren, Fred J. Mun. Engng. 20:323 (June, 1901), Mun. J & E. 10:205 (June, 1901).

"**Hampton, England**, The Shone Sewerage System and Bacterial Beds at." Engng. Rec. 43:405 (April 27, 1901).

Hanau, Ger. "Die Entwässerungs Anlage der Stadt Hanau." Mertz, Ad. Zeitschr d. Ver. Deutscher Ing. May 11, 1901.

Havana.

"Engineering Work in the City of Havana." Engng. N. 45:90 (Feb. 7, 1901); Sanitarian 46:210 (March, 1901).

"The Renovation of Havana." Engng. Rec. 43:49, 74, 101, 130, 153 (Jan. 19, 26, Feb. 2, 9, 16, 1901).

"**Hawaiian Islands**, Lighting of the Cities of the. Possibilities for Development." Am. Gas Lt. J. 74:644 (Apr. 29, 1901).

History of Municipalities. (See also **Population.**)

See Leicester, London, New York, Paris, Schmiedeberg (Ger.), United Kingdom.

"Beiträge zur Stadtgeschichte." (Heft 1, 1763-1816.) Sander, Max. Anklam, Stüsermann, 1900. 8vo, 156 pp. 2m.

"Der Untergang der millelalterlichen Stadtwirtschaft (über den Begriff der Territorialwirtschaft)." v. Below, G. J. Nat. u. Stat. 21:449 (Apr. 1901).

"Origin of Municipal Corporations." Eaton, Amasa M. Worcester M. 1:52 (Jan. 1901).

"Urkunden zur städtischen Verfassungagschichte." Keutgen, F. Berlin, Felber, 1899. 8vo, 224 pp. 3m. 60pf.

Home Rule for Cities, State Administrative or Supervisory Boards, Special Legislation, Relation of City and State Generally.

See Rhode Island, St. Louis, Wisconsin.

Hospitals. (See **Charities.**)

Housing of the Working Classes and of the Poor in Cities, Lodging Houses, Tenement Houses, Slums, Etc. (See also **Population.**)

See Berlin, Bournville, (Eng.), Breslau, Copenhagen, France, Germany, Liverpool, London, New York, Stockholm, United Kingdom, United States.

Housing Problem, General Articles on. Barnett, Samuel A. 19th Cent. 49:794 (May, 1901); Jephson, A. W. Commonwealth (Mar. 1901); Plevin, George J. Humanitarian 18:428 (June, 1901); anon. Monthly R. Feb. 1901; Stein der Weisen Heft 23 (1901).

——. "Die Wohnungsfrage." Dix, Arthur. Berlin, Heymanns Verlag, 1900. 8vo, 50 pp. 60 pf.

——. "Habitations Ouvrières." Varlez, Louis. Pp. 119-132 in "Economie Sociale-Rapport Général." Paris Exposition, 1900. Brussels, Alfred Vroment & Co., 1901. 8vo, 191 pp.

——. "The Housing Question." Crampton, Arthur Wesley. London, Land Agents' Record, 1901. 8vo, 128 pp. Cloth, 3s. 6d.

——. "The Housing of the Working People." Chapter XI. in "Substitutes for the Saloon." Calkins, Raymond. Boston, Houghton, M. & Co., 1901. 12mo, 397 pp. Cl. $1.30.

——. "The Results of State, Municipal and Organized Private Action on the Housing of the Working Classes." Sykes, John F. J. R. Stat. Soc. 64:189 (June, 1901).

——. "Wohnungs und Gesundheitsverhältnisse der Heimarbeiter in der Kleider und Wäschekonfektion." Vienna, Holder, 1901. 8vo, 121 pp.

——. "Wohungsnot und städtische Bodenfrage. Mit einen Anhang: Die soziale Redeutung des Erbbaurechts, von P. Oertmann, R. Sohm und A. Eschenbach." Wagner, Ad. Berlin, Harrwitz Nachf, 1900. 8vo, 43 pp 50pf.

Building Associations and Housing Reform. "Die Baugenossenschaften im Rahmen eines nationalen Wohnungsreform planes." Rampffmeyer, Paul. Göttingen Vandenhoech and Ruprecht, 1900. 8vo, 53 pp. Im.

Ground Rents and the Housing Problems in Cities." "Städtische Grundrente und Wohnungsfrage." Cohn, Heinrich. Neue Zeit 19:177 (May 11, 1901).

Land Question, Housing and. Grenzboten, May 9, June 13, 1901.

"Savings Banks, The Housing Question and the." Wolff, Henry W. Westm. 155:631 (June, 1901).

State Aid for the Construction of Small Houses. "Reichshilfe für Errichtung kleiner Wohnungen." Liebrecht, ——. Göttingen, Vandenhoech and Ruprecht, 1900. 8vo, 40pf.

"Tuberculosis and the Tenement-House Problem." Biggs, Hermann M. Charities 6:377 (May 4, 1901).

Huddersfield Corporation Tramways. Elec. Eng. (Lond.) Feb. 15, 1901; Mun. J. 10:163 (March 1, 1901); Ty. & Ry. W. 10:103 (March 7, 1901).

Hull, Eng.

"The First Municipal Crematorium." Mun. J. 10:1 (Jan. 4, 1901).

"**Illinois**, Franchise Taxation in." Loomis, Hiram B. Mun. Aff. 5:388 (June, 1901).

"**Indianapolis, Ind.**, Garbage Disposal at." Engng. N. 45:83 (Jan. 31, 1901).

Ireland. (See **United Kingdom.**)

Italy.

Electric Traction on Italian Railways. Lanino, P. Rascegna Nazionale Nov. 16, 1900.

Sanitation. Public Hygiene in Italy. Bizzozero, G. Nuova Ant. May 1, 16, 1900.

"Sewage, An Early Example of Combined Septic Treatment and Filtration of." Engng. Rec. 43:293 (Mar. 30, 1901).

Karlsruhe, Ger.

Wages of City Employees. "Die Lohnverhältnisse der städtischen Arbeiterschaft (in Karlsruhe) im Auftrage des stadtrathes dargestellt." Schäfer, F. Karlsruhe, Stadtistiches Amt, 1900. 32 pp.

Labor and its Relation to the Municipality, Condition of Laborers in Cities, Day Labor vs. Contract System, Sweating. (See also **Housing, Unemployment.**)

See Sheffield, United Kingdom.

"A View of the Direct Employment of Labor by Municipalities." J. Gas Ltg. 77:1436 (May 28, 1901).

Labor Conditions upon Public Work. "Les Conditions du Travail dans les Marchés Publics." Vaes, Georges. Louvain, Peeters, 1900. 238 pp.

"Municipal Employment." Commons, John R. Hrprs. Wkly. 45:97 (Jan. 26, 1901).

"The Contract System for Street Improvements." Johnson, J. A. Pp. 28-35 in "Pro. 4th Conv. L. Am. Mun. Dec., 1900."

"Lafayette, Indiana, Garbage Disposal in." Burrage, Severance. Mun. Engng. 20:329 (June 13, 1901).

Leicester, Eng.

History. "Records of the Borough of Leicester." (1327-1509). Bateson, Mary; Stevenson, W. H.; Stocks, J. E. Cambridge University Press, 1901. Vol. II. 8vo. 523 pp. Cl. $6.

Transit Facilities. "The Leicester Tramways." Mun. J. 10:17 (Jan. 4, 1901); Surveyor 19:654 (May 31, 1901).

Libraries, Public.

See New York, United States.

Libraries. "Freie öffentliche Bibliotheken, Volksbibliotheken und Lesehallen." Schultze, E. Stettin, Dannenberg & Cie, 1900. 8vo, 362 pp. 6m.

"Municipal Ownership of Public Libraries." Elrod, Jennie. Mun. J. & E. 10:230 (June, 1901).

"Liege, City Ownership of Street Cars in." Winslow, Alfred A. Cons. Rep. 65:332 (March, 1901).

Lighting. (See also under **Municipal Control, Municipal Ownership.**)

See Amsterdam, Bradford, Chicago, Fulham (Eng.), Hawaiian Islands, London, Manchester, Massachusetts, Mulhouse, Newmarket (Eng.), Nottingham, Paris, Perth (Eng.), South Norwalk, United Kingdom, United States, Vienna, Zurich.

"Electric Lighting." Jackson, Dugald C. Elec. W. & E. 37:34 (Jan. 5, 1901).

——. "Electrical Current." Davis, F. A. W. J. N. E. W. W. Assoc. 15:225 (March, 1901).

——. "Modern Electric Lighting Plant." Summerfield, R. D. Elec. Eng. (Lond.) Jan. 18, 1901.

"Gas Lighting." Knight, J. J. Am. Gas Lt. J. 74:448 (March 25, 1901).

——. "Book-Keeping for Gas Works." Sandell, Charles. Gas W. Jan. 19, 1901; Prog. Age 19:68, 97, 123, 146, 169 (Feb. 15, March 1, 15, Apr. 1 15, 1901).

——. "Carburetted Wated Gas." Cutler, Samuel, Jr. J. Gas Ltg. 77:619 (Mar. 5, 1901).

——. "Coal Gas and Water Gas." Adams, Alton D. Mun. Engng. 20:4 (Jan., 1901).

——. "Consumption of Coal Gas, Effect of Quality on the." Dibdin, W. J. Prog. Age 19:4 (Jan. 1, 1901).

——. "Enrichment of Coal Gas." Hooton, R. J. Gas Ltg. 77:613 (March 5, 1901).

——. "European Gas Supply as Viewed by an American." Shelton, F. H. J. Gas Ltg. 77:691 (March 12, 1901).

——. "Future of the Gas Profession." Am. Gas Lt. J. 74:4, 47 (Jan. 7, 14, 1901).

——. "Gas Supply." Eng. (Lond.) Jan. 4, 1901.

——. "Hints on Gas Selling." Young, John. Am. Gas Lt. J. 74:723 (May 13, 1901), J. Gas Ltg. 77:1057 (April 23, 1901).

——. "How they Do Things on the Other Side." Shelton, Frederick H. Am. Gas Lt. J. 74:407 (March 18, 1901); Prog. Age 19:88 (March 1, 1901).

——. "Liquor, Valuation of Gas." Carulla, F. J. R. J. Gas Ltg. 77:542 (Feb. 26, 1901).

——. "Modern Gas Practice." Jones, H. E. J. Gas Ltg. 77:1116 (April 30, 1901); anon. Prog. Age 19:213 (May, 15, 1901).

——. "Modern Methods of Saving Labour in Gasworks." Brackenbury, C. E. London, P. S. King & Son, 1901. 8vo, 64 pp. Cl. 3s. 6d.

——. "Purification of Gas, Further Notes on." Carpenter, S. Am. Gas Lt. J. 74:729 (May 13, 1901).

——. "Relation of Heating to Lighting Power of Gas, with Special Reference to Incandescent Mantles." Russell, Herman; White, Alfred H. Prog. Age 19:118 (March 15, 1901).

——. "Some Differences Between British and Continental Gas Engineering." Brackenbury, C. E. J. Gas Ltg. 77:1292 (May 14, 1901).
——. "Some Observations, Pessimistic and Otherwise." Faben, Charles R., Jr. Prog. Age 19:158 (April 15, 1901).
——. "Subaqueous Tunnels for Gas Conduits." Cummings, W. W. J. Assn. Engng. Soc. 26:327 (June, 1901).
——. "Training of a Gas Engineer, The." Berridge, T. J. Gas Ltg. 77:536 (Feb. 26, 1901).
——. "Water Gas Process, Theory of the." Strache, H.; Jahoda, R. J. Gas Ltg. 77:27, 87, 401 (Jan. 1, 8, Feb. 12, 1901).
"Hygienic Artificial Illumination." Alleman, L. A. W. Prog. Age 19:33, 12 (Jan. 1, 15, 1901).
"Inaugural Address." (Midland Association of Gas Managers.) J. Gas Ltg. 77:526 (Feb. 26, 1901).
"Maps, Street." Challis, Paul. Am. Gas Lt. J. 74:449 (March 25, 1901), Prog. Age 19:114 (March 15, 1901).
"Public Lighting by Gas and Electricity." Dibdin, W. J. San. Rec. 27:1, 21, 263, 423 (Jan. 4, 10, March 28, May 16, 1901).
"Street Lighting of Cities." Humphrey, Henry H. J. Assoc. Engng. Soc. 26:18 (Jan. 1901).
——. "A New System of Street Lighting." Mun. J. 10:383 (May 24, 1901).
——. "Common Sense in Street Lighting." Ellicott, Edward B. Mun. J. & E. 10:216 (June, 1901).
——. "The Lighting of City Streets." Jones, E. C. Am. Gas Light J. 74:203 (Feb. 11, 1901), J. Elec. Dec. 1900.

"**Lincoln, England,** Sanitary Provisions in the Roman Colony at." O'Neill, William. Engng. Rec. 43:281 (March 23, 1901).

Liquor Problem in Cities.

See Chicago, United Kingdom.
"Regulation of Saloons." Chapell, L. H. (Pp. 8-10 in "Pro. 4th Conv. L. Am. Mun. Dec. 1900).
"Substitutes for the Saloon." Calkins. Raymond. (For the Committee of Fifty.) Boston, Houghton, M. & Co., 1901. 12mo, 397 pp. Cl. $1.30. Reviewed by Melendy, Royal Loren. Ind. 53:943 (April 25, 1901).
"The Place of Compensation in Temperance Reform." Sanger, C. P. London, P. S. King & Son, 1901. 12mo, 135 pp. Cl. 2s. 6d.

"**Lisbon,** The Street Railway System of." Wardlaw, F. A. St. Ry. J. 17:288 (March 2, 1901).

Liverpool.

"Liverpool as an Object Lesson." Mun. J. 10:41 (Jan. 18, 1901).

"Baths in the Slums, Free Open-Air." Mun. J. 10:397 (May 31, 1901).
"Housing Problem in Liverpool." Mun. J. 10:211, 267, 323 (March 22, April 12, May 3, 1901).
Transit Facilities. "Tramways at Liverpool." Mun. J. 10:81 (Feb. 1, 1901).
——. "Liverpool's Electrical Undertaking." Mun. J. 10:247 (April 5, 1901).

Lodging Houses. (See under **Housing**).

London, Eng.

Borough Councils Act. "La nouvelle Loi Municipale de Londres et les Elections de Novembre, 1900." Nève, Joseph E. Ref. Soc. 1:72 (Jan. 1, 1901).
"County Council, Fifth London." Lawson, H. L. W. Fortn. 75:623 (April, 1901).
——. "L. C. C. Campaign." Mun. J. 10:147 (Feb. 22, 1901).
——. "What the L. C. C. Has Done in Ten Years." Conway, Harold. Harmsworth M. March, 1901.
"East London." Besant, Sir Walter. New York, Century Co., 1901. 8vo, 364 pp. Cl. $3.50.

History. "The Survey of London: Being the first volume of the Register of the Committee for the Survey of the Memorials of Greater London, containing the Parish of Bromley-by-Bow." Ashbee, C. R. London, P. S. King & Son, 1901. 10s. 6d.

"How London was Saved." Martin, John. Forum 31:318 (May, 1901).

"London for Citizenship." Mun. J. 10:181 (March 8, 1901).

"Municipal London, 1900." Whitmore, C. A. London, A. & C. Black, 1900. 12mo, 90 pp. Paper, 1s.

Sheriff. "Der London Grafschaftsrat. Ein Beitrag zur städtischen Sozialreform." Band I: "Die Schlussper ode der Herrschaft der Mittelklasse in der Londoner Stadtverwaltung." Sinzheiner, L. Stuttgart, Cotta, 1900. 8vo, 520 pp. 10m.

"The London Manual for 1901." Donald, Robert. London, Edward Lloyd, 1901. 12mo, 352 pp. Cl. 1s. 6d.

"Who Owns London?" Myers, A. Wallis. Harmsworth M. 6:429 (June, 1901).

"Baths for Battersea." Mun. J. 10:285 (April 19, 1901).

——. "Baths of West Ham." Mun. J. 10:343 (May 10, 1901).

"Housing in London." Mun. J. 10:27 (Jan. 11, 1901).

——. County Council and Housing Reform. Jones, Charles Sheridan. Fortn. 75:387 (Feb. 1901); Tompkins, Henry. Positivist R. 9:84 (April, 1901); Waterlow, David S. Fortn. 75:187 (Jan. 1901).

——. "Housing Question in London, 1855-1900." Stewart, C. J. London, P. S. King & Son, 1900. 8vo, 381 pp.

——. "Improved Means of Locomotion as a First Step towards the Cure of the Housing Difficulties of London." Booth, Charles. London, Macmillan & Co., 1901. 8vo, 24 pp. 1d.

——. "Municipal Town Making." Mun. J. 10:157 (March 1, 1901).

——. "Rapid Transit in London in Relation to the Housing Problem." Fox, Douglas. Engng. Times 5:257 (May, 1901).

——. "Rowton Houses; London Low-Priced Men's Hotels." Engng. Rec. 43:378 (April 20, 1901).

Lighting. "Accounts of the Metropolitan Gas Companies for the Year 1900." J. Gas Ltg. 77:992 (April 16, 1901).

——. "How London Gets Her Electric Light." Bacon, G. Windsor M. April, 1901.

——. "To Light the Embankment." Mun. J. 10:159 (March 1, 1901).

Parks. "A Municipal Pleasure Palace." Mun. J. 10:339 (May 10, 1901).

——. "Some Foreign Work and Workers." Seavey, Frances Copley. Park & Cem. 11:10 (March, 1901).

——. "The Opening of Gladstone Park." Mun. J. 10:377 (May 24, 1901).

"Port of London, The." Wheeler, W. H. Eng. (Lond.) March 1, 1901.

Sanitation. "The Health of London County." San. Rec. 27:26 (Jan. 10, 1901).

"Sewage, The Treatment of London." Clowes, Frank. Engng. Rec. 43:10 (Jan. 5, 1901); J. Soc. Arts. Dec. 14, 1900.

Smoke Nuisance. "London: The Black City." Richmond, W. B. Pall Mall M. 23:462 (April, 1901).

"Streets and Street Traffic in London." Surveyor 19:265 (March 1, 1901).

——. "Street Cleaning in Westminster." Livingstone, George. Mun. J. & E. 10:231 (June, 1901).

——. "The State of London Streets." Blashill, Thomas. Builder Feb. 23, 1901, J. San. Inst. 22:6 (April, 1901).

Transit Facilities. County Council and Electric Tramways. Kennedy, A. B. W. Engng. (Lond.) Feb. 22, 1901; anon. Elecn. (Lond.) Feb. 22, 1901, Ty. & Ry. W. 10:116 (March 7, 1901).

——. "Central London Railway." Twelvetrees, W. N. Feilden's M. March, April, 1901.

——. "Electric Tramways in West London." Mun. J. 10:263 (April 12, 1901).

——. "Inner Circle London Underground Railway." Elec. W. & E. 37:185 (Feb. 2, 1901).

——. "Subways, The City of London." Elec'n. (London.) Nov. 30, 1900.
——. "Tramways Administration of the London County Council." Ty. & Ry. W. 10:210 (April 11, 1901).
——. "Tramways in London." Mun. J. 10:103 (Feb. 8, 1901).
"Water Supply, Future of the London." J. Gas Ltg. 77:462 (Feb. 19, 1901).
——. "Royal Commission on London Water Supply, 1899-1900." (Maps, Plans and Diagrams.) London, P. S. King & Son, 1901. 26s.

Louisville, Ky.

"Water Purification at Louisville." Engng. Rec. 43:5, 51 (Jan. 5, 19, 1901).
——. "A Proposed New System of Mechanical Filtration for Louisville, Ky." Engng. N. 45:52 (Jan. 17, 1901).

"**Madison, Wis.**, Water Supply." Mun. Engng. 20:337 (June, 1901).

Madrid.

Prostitution. "La Prostitucion en Madrid; apuntes para un estudo sociológico." Eslava, R. G. Madrid, Vincente Rico, 1901. 8vo, 100 pp.

Manchester, Eng.

"Electricity Supply for Greater Manchester." Elec'n. (Lond.) April 12, 1901.
——. "Manchester Electricity Works." Elec. Eng. (Lond.) April 5, 1901.
"Gas Profits in Manchester, Allocation of." J. Gas Ltg. 77:556 (Feb. 26, 1901).

Massachusetts.

Gas Lighting. "Bay State Gas Inquiry." Prog. Age 19:31 (Jan. 15, 1901).
——. "The Gas Commission of Massachusetts." J. Gas Ltg. 77:602 (March 5, 1901).
"Street Railways in the Commonwealth of Massachusetts, Development of." Allen, Walter S. Commonw. of Mass., Boston, 1901. 8vo, 26 pp. Pamphlet.

Mayor, The.

See United States.

Melbourne, Aus.

"Sewerage System and Sewage Farm of the Melbourne and Metropolitan Board of Works." Engng. N. 45:69 (Jan. 24, 1901).

"**Mexico**, The Drainage of the City of." Surveyor 19:232 (Feb. 22, 1901).

"**Michigan**, The Valuation and Taxation of Telephone Companies in." Rice, W. J. Elec. W. & E. 37:196 (Feb. 2, 1901).

"**Missouri**, Franchise Legislation in." Paxson, Frederic L. Ann. Pol. Sci. 17:469 (May, 1901).

Monopolies, Municipal. (See under **Municipal Control, Municipal Ownership.**)

"**Mulhouse**, The New Gas Works at." J. Gas Ltg. 77:997 (April 16, 1901).

Municipal Control, Municipal Ownership.

See Boston, California, Chicago, France, Glasgow, Missouri, Ohio, South Norwalk, United Kingdom, United States, Wallingford (Conn.), Winnipeg, Wolverhampton (Eng.).

GENERAL WORKS.

"Argument against Municipal Ownership." French, George. Worcester M. 1:292 (May, 1901).
"Classes in Interest in Public Service Ownership and Management." Public Policy 4:3 (Jan. 5, 1901).
"Drift toward Public Ownership, The." Nelson, N. O. City & State 10:61 (Jan. 24, 1901).
——. "The Great Boom for Municipal Ownership." Worcester M. 1:168 (March, 1901).

Economic Theory of Municipalization. "La Teorica Economica della Municipalizzazione dei Pubblici Servigi." Montemartino, G. Giornale d. Econ. 22:180 (Feb. 1901).

"Elections and Private Corporations Supplying Public Utilities, Municipal." Nichols, F. M. Pp. 35-45 in "Pro. 1st Con. L. Pa. Cities, York, 1900."

"Franchises." Cooper, H. S. St. Ry. R. 11:304 (May 15, 1901).

"Government Ownership of Quasi-Public Corporations." Seligman, E. R. A. Gunton's 20:305 (April, 1901).

History. "Monopolies Past and Present." (Ch. VI. "Municipal Monopolies.") Le Rossignol, James Edward. New York, T. Y. Crowell & Co., 1901. 12mo, 353 pp. Cl. $1.25.

——. "L'Evolution du Socialisme." Bourdeau, J. Paris, Alcan, 1901. 16mo. 3 fr. 50c.

"Il monopolio privato dei pubblici servizi." Bachi, Riccardo. La Riforma Sociale 11:191 (Feb. 15, 1901).

"La Municipalizzazione dei Servizi Pubblici." Morelli, G. A. Turin, Bocca, 1901. 8vo, 172 pp. 3l.

"Le Municipalisme." Bouet, H. J. Econ. 47:3 (July, 1901).

"Limitations of Municipal Enterprise, The." Garcke, Emile. Trans. Pol. Ec. C. Nat. Lib. Club. Vol. III., 1901.

"Municipal Administration of Public Utilities." Symmes, Frank J. Public Policy 4:44 (Jan. 26, 1901).

"Municipal Industries and the Ratepayer." Smart, W. Econ. J. 11:169 (June, 1901).

"Municipal Ownership." Bemis, Edward Webster. Prog. Age 19:24, 46 (Jan. 15, Feb. 1, 1901); Case, L. N. Mun. Engng. 20:216 (April, 1901), Public Policy 4:242 (April 27, 1901); Ely, Richard T. Cal. Mun. 4:42 (March, 1901); Martin, John. World's Work 2:833 (June, 1901).

"Municipal Ownership from an Engineer's Viewpoint." McCullough, Ernest. Public Policy 4:141 (March 16, 1901).

"Municipal Ownership from a Public Accountant's Point of View." Cooper, John Alexander. Public Policy 4:278 (May 11, 1901), St. Ry. J. 17:579 (May 11, 1901).

"Municipal Ownership and Operation of Public Utilities." Warner, John De Witt. Mchts. Assoc. R. Vol. 5, No. 54, p. 4 (Feb. 1901).

"Municipal Ownership vs. Private Corporations." Miller, Thomas D. Am. Gas. Lt. J. 74:686 (May 6, 1901).

"Obstacles in the Way of Municipal Ownership." Jones, Samuel M. Pp. 80-84 in "Pro. 4th Conv. L. Am. Mun. Dec. 1900."

"Private or Corporate Ownership of Public Utilities." Hersh, Grier. Pp. 45-50 in "Pro. 1st Conv. L. of Pa. Cities, York, 1900."

"Regulation of Public Utilities." Odell, Benj. B. Prog. Age 19:27 (Jan. 15, 1901).

Remuneration to Cities for Franchise Rights. Coler, Bird S. Pp. 64-66 in "Pro. 4th Conv. L. Am. Mun. Dec. 1900," Am. Gas Lt. J. 74:11 (Jan. 7, 1901), Mun. Engng. 20:35 (Jan. 1901), Public Policy 4:122 (March 9, 1901); Tooke, C. W. Pp. 66-70 in "Pro. 4th Conv. L. Am. Mun. Dec. 1900," Public Policy 4:156 (Mar. 23, 1901); anon. Mun. J. & E. 10:43 (Feb. 1901).

"Socialismo municipale e socialismo di Stato." Labriola, Arturo. Critica Sociale 10:139 (March 1, 1900).

"Some Observations on the Subject of Franchises." Mason, H. A. Cal. Mun. 4:103 (May, 1901).

"The Improper Influence on Legislation by Public Service Companies." Burke, John F. Pp. 157-163 "Pro. Milwaukee Conf." Philadelphia National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

"The Influence of Public Service Corporations on City Government." Gladden, Washington. Pp. 164-175 "Pro. Milwaukee Conf." Philadelphia National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

"The Next Step in Municipal Reform." Smith, Edwin Burritt. Cal. Mun. 4:75 (April, 1901).

"Why I Believe in Municipal Ownership." Abbot, Willis J. Mun. J. & E. 10:115 (April, 1901).

Bakeries, Municipal. "'Pane Municipale." Critica Soc. 11:9, 25, 45 (Jan. 1, 16, Feb. 1, 1901).

Banks, The Municipalization of Mortgage. Lebius, R. Socialistische Monatshefte May, 1901.

——. Private Capital and Municipal Mortgage. Bernhard, G. Socialistische Monatshefte March, 1901.

Insurance. "L'Assicurazione Municipale." Aloè, ——. Critica Sociale 10:141 (March 1, 1901).

"Lighting in Small Towns, Municipal." Perkins, Thomas C. Mun. J. & E. 10:64 (Feb. 1901).

"Street Railway Problem, The." Nation 72:250 (March 28, 1901).

——. "City Ownership and Operation of Street Railways." Parsons, Frank. Arena 25:198 (Feb. 1901).

——. "The Street Railways and the Public." Mun. J. & E. 10:83 (March, 1901).

"Water Works Owned by Municipalities or Private Corporations, Efficient Management and Maintenance of." Williams, Benjamin L., Jr. Cal. Mun. 4:110 (May, 1901), Mun. Engng. 20:266 (May, 1901).

Municipal Socialism. (See **Municipal Control, Municipal Ownership.**)

Naples, Harbor of. "Le Port de Naples." R. Technique Feb. 25, 1901.

"**Newmarket** [**Eng.**], Water Supply and Electric Lighting System." McLean, W. A. Mun. W. (Supp.) Vol. II. No. 1, p. 1 (Jan. 1901).

"**New Orleans,** Concrete Street Pavement in." Mun. Engng. 20:341 (June, 1901).

New York City.

"A Plea for New York." Paulding, J. K. Atlan. 87:172 (Feb. 1901).

"A Year's Work in New York." Good Govt. 18:51 (May 15, 1901).

"Charter for Greater New York, A." Maltbie, Milo Roy. Mun. J. & E. 10:171 (May, 1901).

——. "Before the Commission to Revise the Charter of the City of New York. Proposals and Argument. * * *" Moss, Frank. 8vo, 45 pp. Free.

"Croker." White, William Allen. McClure's 16:317 (Feb. 1901).

"Greater New York." Gray, John H. Ann. Pol. Sci. 17:291 (March, 1901).

"New York is the World's Costliest City." Erskine, Edward. Leslie's W. 92:54 (Jan. 19, 1901).

"Newyorkitis." Girdner, John H. New York, Grafton Press, 1901. 12mo, 164 pp. Cl. $1.25.

"The Government of a Great City." Coler, Bird S. Everybody's 4:285 (March, 1901).

"Twentieth Century New York." Corwine, W. R. Home M. Jan. 1901.

Election of 1901. "Significance of New York's next Election." Slicer, Thomas R. Mun. J. & E. 10:156 (May, 1901).

——. "The City Must Work Out Its Own Salvation." Nation 72:190 (March 7, 1901).

History. "A Landmark History of New York." Ulmann, Albert. New York, D. Appleton & Co., 1901. 12mo, 285 pp. Cl. $1.50.

——. (See also Tammany Hall below.)

Housing. "La Question des Logements à New York." Escard, Paul. Ref. Soc. 41:689, 864 (May 1, June 1, 1901).

——. "Advance Sheets of part of the Report of the Tenement House Commission." New York, Tenement House Commission, 1901. 8vo, 186 pp. Free.

——. Mills Hotel. "Un Hotel Ouvrier à New York." "D. B." J. des Econ. 45:80 (Jan. 15, 1901).

"Libraries, Public, in the Metropolitan Boroughs." Lib. W. Jan. 1901.

——. "A Beautiful Public Building." Ladegast, Richard. Outlook 67:286 (Feb. 2, 1901).

"Nominations in Colonial New York." Becker, Carl. Am. Hist. R. Jan. 1901.

"Playground Progress in Seward Park." Stover, Charles H. Charities 6:386 (May 4, 1901).

——. "The New York Aquarium." Bristol, Charles L. Pop. Sci. Mo. 58:405 (Feb. 1901).

Police. "Gambling in New York." Jerome, William Travers. Ind. 53:1186 (May 23, 1901).

——. "New York: A Dishonest City." Flynt, Josiah. McClure's 16:570 (April, 1901).

Street Cleaning. "How the City of New York Fights the Snow." Waters, Theodore. Home M. Feb. 1901.

"Tammany Hall, The History of." Myers, Gustavus. New York, Myers, 1901. 12mo, 357 pp. Cl. $1.50.

——. "New York in Bondage." Townsend, John D. New York, 1901. 12mo, 251 pp. Cl. $1.50.

——. "The Secrets of Tammany's Success." Myers, Gustavus. Forum 31:488 (June, 1901).

Transit Facilities. "Electric Equipment of the Manhattan Elevated Railway." Pegram, Geo. H.; Baker, W. E.; Stillwell, L. B. St. Ry. J. 17:1 (Jan. 5, 1901).

——. "East River Bridge No. 3." Railroad Gaz. 33:138 (March 1, 1901).

——. "New York's Subway Policy." Gaynor, William J. Mun. Aff. 5:534 (June, 1901).

——. "Section Third of the New York Rapid Transit Subway." Engng. Rec. 43:32 (Jan. 12, 1901).

——. "Sections 6A and 6B, New York Rapid Transit Railway. Engng. Rec. 43:294 (March 30, 1901).

"Water Supply of New York, The." J. of Gas Ltg. 77:1439 (May 28, 1901).

——. "Health of the City of New York, and the Water Supply." Chapin, Henry Dwight. Sanitarian 46:113 (Feb. 1901).

New York State.

"Taxpayers' Actions to Redress Municipal Wrongs under the Statutes of the State of New York." Thomson, J. C. Albany, H. B. Parsons, 1901. $2.

Non-Partisanship in Municipal Elections. (See **Parties and Party Politics in Cities, etc.**)

"**Norfolk, Va.,** Filtration and Meterage at." Fire & W. 29:2 (Jan. 5, 1901).

Nottingham, Eng.

"Electric Lighting and Tramways, Nottingham Corporation." Elec. R. (Lond.) Jan. 11, 1901.

Tramways, Nottingham. McFarland, S. C. Cons. Rep. 66:175 (June, 1901); anon. Ty. & Ry. W. 10:51 (Feb. 7, 1901).

Ohio.

"Franchises on Public Highways in Ohio, Electric Railway." St. Ry. J. 17:226 (Feb. 16, 1901).

"Municipal Government—The Problem in Ohio." Thresher, E. M. Public Policy 4:181 (April 6, 1901).

"**Oswestry [Eng.]** Municipal Work and Progress." Lacey, G. William. Surveyor 19:624 (May 24, 1901).

Paris, France.

Finances of the City of Paris, 1798-1900. "Les Finances de la Ville de Paris de 1798 à 1900." Ann. Sci. Pol. 16:45 (Jan., 1901).

——. "La Question de l'Octroi à Paris." Veber, Adrien. R. Soc. 28:446 (Oct., 1898).

History. "L'Histoire de L'Administration Parisienne au XIXe Siècle." Cilleuls, ——. Paris, Champion, 1900. 2 vols., 552, 765 pp.

——. Government of Paris, 1800-1870. "L'Administration Parisienne de 1800 à 1870." Babeau, Albert. Ref. Soc. 1:394 (March 1, 1901).

"Lighting of Paris, the Public." J. Gas. Ltg. 77:1376 (May 21, 1901).
——. "Paris Gas Company Report and Accounts for the Year 1900." J. Gas. Ltg. 77:1072 (Apr. 23, 1901).
——. "The Paris Gas Company and the Municipality." J. Gas Ltg. 77:1134 (Apr. 30, 1901).
——. "The Paris Gas Question." Am. Gas Lt. J. 74:773 (May 20, 1901); J. Gas Ltg. 77:343 (Feb. 5, 1901).
"Sewerage Works of Paris, New." Eng. (Lond.) Jan. 11, 1901.
Transit Facilities. Metropolitan Railway of Paris. "Le Metropolitain de Paris.' Dumas, A. Génie Civil 38:277, 301 (Mar. 2, 9, 1901).
——. Improvement of Local Transport in Paris. "Amélioration des Transport en Commun à Paris." Delmas, Marcel. Soc. Ing. Civ. de France Dec., 1900.
"Water Supply of Paris, The." Engng. N. 45:247 (Apr. 4, 1901).
——. "Paris Drainage and Water Supply." Eng. (Lond.) Dec. 14, 1900.
——. Supply of Water from Loing and Lunain to Paris. "Adduction des Eaux du Loing et du Lunain." Feugères, F. J. Génie Civil Jan. 19, 1901.

Parks, Playgrounds, Open Spaces, Etc.

See Detroit, London, New York, Sydney, Worcester (Mass.).
"Formal Gardening at Its Best." Miller, Wilhelm. Pilgrim Vol. II, No. 11, p. 6 (June, 1901).
"Park-Making as a National Art." Merwin, H. B. World's Work 1:293 (Jan., 1901).
Trees in Public Squares, etc. Stein der Weisen Heft. 21 (1901).

Parties and Politics in Cities, Non-Partisanship. (See also **Elections.**)

"Dangers of the Commercial Spirit in Politics." Coler, Bird S. Pp. 176-181 "Pro. Milwaukee Conf." Philadelphia, National Municipal League, 1900. 8vo, 286 pp. Cl. $1.
"Municipal Political Parties." Maltbie, Milo R. Pp. 226-238 "Pro. Milwaukee Conf." Philadelphia, National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

Pauperism. (See **Charities.**)

Pavements, Paving, Etc. (See also **Streets.**)

See Boston, Buffalo, Hamilton, New Orleans, United States.
"Asphalt Pavements." Tillson, George W. Mun. J. & E. 10:35 (Feb. 1901).
——. "Asphaltum for a Modern Street." Peckham, S. F. Pop. Sci. M. Jan., 1901.
——. "How to Repair Asphalt Pavements." Hooke, Robert. Mun. J. & E. 10:121 (Apr., 1901).
"Brick Pavements, Construction of." Grimes, George R. Mun. J. & E. 10:73 (March, 1901).
——. "Durability of Brick Streets." Blair, W. Brick May, 1901.
——. "Modern Brick Pavement Construction." Tarrant, W. H. Mun. Engng. 20:219 (April, 1901); Mun. J. & E. 10:213 (June, 1901).
——. "Paving Brick Specifications and Tests." Engng. Rec. 43:127 (Feb. 9, 1901).
"Coal Tar for Paving Uses." Warren, Fred J. Mun. Engng. 20:204 (April, 1901).
"Oiled Roads and Streets, How to Construct." White, Thomas F. Cal. Mun. 4:17 (Feb., 1901).
"Sanitary Block Pavement, A." Surveyor 18:594 (Nov. 23, 1900).
"Stone Pavements." Tillson, George W. Mun. J. & E. 10:111 (Apr., 1901).
"Streets and Street Pavements." Tyrrell, H. G. Mun. J. & E. 10:214 (June, 1901).
"Tar Macadam Pavement." Buckley, E. R. Municipality Vol. 1, No. 6, p. 21 (Feb., 1901).
——. "Tar Macadam Specifications." Cal. Mun. 4:47 (March, 1901).

"Pawtucket, The Septic Tank Experiments at." Carpenter, George A. Engng. Rec. 43:148 (Feb. 16, 1901).

Pennsylvania.

"Recent Street Railway Legislation in Pennsylvania and Philadelphia." Woodruff, Clinton Rogers. Mun. Aff. 5:419 (June, 1901).

"**Perth [Eng.]** Corporation, New Gas-Works for the." J. Gas Ltg. 77:1132 (Apr. 30, 1901).

Philadelphia.

"Election Methods and Reforms in Philadelphia.' Woodruff, Clinton Rogers. Ann. Pol. Sci. 17:181 (March, 1901).

Police.

See Boston, New York.

"Police Administration." Fairlie, J. A. P. S. Q. 16:1 (March, 1901).

Population, Growth of Cities, Decrease of Rural Population.

(See also **Housing** and **History.**)

See United Kingdom, United States.

Formation of Cities in Western Europe. "La Formation des Villes dans l'Europe Occidentale aux Origines de la Civilisation Moderne." Funck-Brentano, Frants. Ref. Soc. 1:130 (Jan. 16, 1901).

Prostitution.

See Madrid.

"Another View of Municipalities and Vice." Mun. Aff. 5:375 (June, 1901).

"Die Prostitution vom Standpunkte der Sozialhygiene aus betrachtet." Gruber, Max. Vienna, University, 1900. 38 pp.

"Staat und Prostitution." Schmölder, ——. Berlin, H. Walter, 1900. 8vo, 45 pp.

"**Providence,** The Sewage Precipitation Works at." Engng. Rec. 43:416 (May 4, 1901).

Public Works. (See **Engineering.**)

Quasi-Public Works. (See under **Municipal Control, Municipal Ownership.**)

Rapid Transit. (See under **Transit Facilities.**)

Refuse Disposal. (See under **Garbage Disposal.**)

"**Rhode Island,** Relation of the State to Municipalities in." Sherman, Sidney A. Ann. Pol. Sci. 17:472 (May, 1901).

"**Rochester, N. Y.,** The City of." Arnot, Raymond H. New Eng. M. 24:31 (March, 1901).

"**St. Helen's [Eng.]** Electric Tramways." Ty. & Ry. W. 10:227 (May 9, 1901).

St. Louis, Mo.

"Political Conditions in St. Louis." Sheldon, Walter L. City & State 10:25 (Jan. 10, 1901).

"State Legislation." Hoxie, Robert F. Ann. Pol. Sci. 17:531 (May, 1901).

"**St. Paul,** Street Cleaning in." Claussen, O. Engng. Rec. 43:348 (Apr. 13, 1901).

"**Salford,** Cleansing Work in." Hamblett, W. H. Mun. J. & E. 10:67 (Feb., 1901).

Saloon Problem in Cities. (See under **Liquor Problem in Cities.**)

San Francisco, Cal.

"Charter, Practical Working of San Francisco's." Phelan, James D. Cal. Mun. 3:210 (Jan., 1901).

"Franchise Taxation in San Francisco." Dodge, Washington. Mun. J. & E. 10:125 Apr., 1901.

"Municipal Affairs in San Francisco." Freud, J. Richard. Mchts. Assoc. R. Vol. 5, No. 57, p. 3 (May, 1901), Cal. Mun. 26:139 (June, 1901).
"School Situation in San Francisco." Cubberley, Ellwood P. Educa. R. (Lond.) Apr., 1901.
Transit Facilities. "Notes on the Market Street Railway, San Francisco." St. Ry. J. 17:512 (May 4, 1901).
"Water Supply of San Francisco, Public Ownership of the." Reed, Charles Wesley. Cal. Mun. 3:196 (Jan., 1901).

Sanitation, Public Health, Etc. (See also **Garbage Disposal, Housing, Population, Sewage Disposal, Water Supplies.**)
See Italy, Lincoln, London, United Kingdom, United States.
"A Survey of Public Sanitation in the Nineteenth Century." Bryce, Peter H. Sanitarian 46:3 (Jan., 1901).
Principles of Municipal Sanitation. "Principien der Städtereinigung." Degener, Paul. Zeitschr. d. Oesterr. Ing. Arch. Ver. May 3, 1901.
"Sanitary Engineeering." Eng. (Lond.) Jan. 4, 1901.
"Sanitation and Progress." Wyman, Walter. Sanitarian 46:193 (March, 1901).
"Wanted: Better Sanitation." Woodward, Wm. C. Mun. J. & E. 10:172 (May, 1901).

Savings Banks.
"La Caisse d'Epargne et de Prévoyance des Bouches-du-Rhône, 1821-1899." Briere, P. Marseilles, 1899. 4 to, 242 pp.

Schmiedeberg, Germany. "Geschichte der Stadt Schmiedeberg im Riesengebirge." Eisenmänger, Th. Breslau, Waywod, 1900. 8vo, 256 pp. 3m. 50 pf.

School Systems of Cities.
See Germany, San Francisco, United Kingdom.
Municipal or State School, The. Scheltens, J. Vragen des Tijds Jan. 1901.
"Professional Municipal Schools." Reville, J. Nouv. R. Internationale Nov. 30, 1900.
"Technical Education in Europe." Mun. J. 10:171, 243 (March 8, Apr. 5, 1901).
"Vacation Schools." Ball, Helen A. Worcester M. 1:284 (May, 1901).
——. "Vacation Schools and Playgrounds." Kindergarten M. 13:489 (May, 1901).

Settlement Movement, College, Social and University Settlements.
See Chicago.
"List of Social Settlements." Commons Vol. 6, No. 57, p. 6 (April, 1901).
"Social Settlements." B. Bureau Labor Stat. N. Y. 2:296 (Dec. 1900).

Sewage Disposal, Sewerage Systems. (See also **Sanitation** and **Water Supplies.**)
See Berlin, Boston, Brent (Eng.), Calcutta, Chicago, Columbus, Connecticut, Hale (Eng.), Hampton (Eng.), Hanau (Ger.), Italy, London, Melbourne, Mexico, Paris, Pawtucket, Providence, United Kingdom, West Bromwich (Eng.), Worcester (Mass.).
"Bacterial Treatment of London Sewage and American Sewage Disposal Problems." Houston, A. C. Engng. N. 45:65 (Jan. 24, 1901).
——. "General Suggestions as to Bacterial Treatment of Bacterial Lines." Dibdin, W. J.; Smith, C. Chambers. San. Rec. 27:375 (May 2, 1901).
——. "Sewage Purification by Bacteria." Chipman, Willis. Pp. 62-69 in "15th Annual Meeting of the Association of Executive Health Officers of Ontario, Aug., 1900."
——. "Sewage Disposal Notes, with Special Reference to Bacteria Contact Tanks." Hill, T. Eustace. Public Health June, 1901.
Biological Systems for Purifying Sewage and Waste Fluids from Factories. Weyerman, J. W. Jenny. Vragen des Tijds Mar., 1901.
"Cesspools, the Cleaning of." Allen, T. Taylor. San. Rec. 27:265 (Mar. 28, 1901).
"Drainage of Towns." Tyrrell, H. G. Mun. J. & E. 10:159. (May, 1901).

"Oxygen Absorption Test in Water and Sewage Analysis, The Evolution of the." Weems, J. W. Engng. Rec. 43:81, 128 (Jan. 26, Feb. 9, 1901).

"Purification, Modern Methods of Sewage." Mun. Engng. 20:257 (May, 1901).

——. "General Principles of Sewage Purification." Dibdin, W. J. Surveyor 19:533 (May 3, 1901).

——. "Self-Purification of Polluted Watercourses." Reynolds, Arthur R. Engng. Rec. 43:250 (Mar. 16, 1901).

——. "Sewage Disposal and Water Purification." McClintock, John N. Dom. Engng. Mar. 15, 1901.

——. "Sewage Purification and Standards of Purity." Blyth, A. Wynter. San. Rec. 27:353 (Apr. 25, 1901).

Sewage Disposal. Barbour, F. A. Engng. Rec. 43:301 (Mar. 30, 1901); Johnson, John Butler. Municipality Vol. 1, No. 6, p. 1 (Feb., 1901); anon. Mun. J. & E. 10:119 (Apr., 1901).

"Sewage Disposal Problems." Baker, M. N. Pp. 11-14 in "Pro. 4th Conv. L. Am. Mun. Dec., 1900."

"Sewage Problems." Carpenter, George A. Pp. 14-18 in "Pro. 4th Conv. L. Am. Mun. Dec., 1900."

"Sewerage Systems of Industrial Works." Engng. Rec. 43:279 (Mar. 23, 1901).

Ventilation of Sewers. Whyatt, H. Gilbert. San. Rec. 27:45, 89 (Jan. 17, 31, 1901); Surveyor 19:28 (Jan. 11, 1901); anon. Eng. (Lond.) Feb. 8, 1901.

Sheffield, Eng.

"Electric Tramway System, The Equipment of the Sheffield." Fell, A. L. C. Ty. & Ry. W. 10:252 (May 9, 1901).

"Works Department for Sheffield." Mun. J. 10:287 (Apr. 19, 1901).

Slums. (See **Housing.**)

Smoke Nuisance.

See London.

"The Smoke from a Great City: Some Practical Experience with Preventive Measures." Benjamin, C. H. Cassier's 20:129 (June, 1901).

South Norwalk, Conn.

"Successful Municipal Lighting." Mun. J. & E. 10:153 (May, 1901).

Special Assessments. (See Assessments, Special, under **Finance.**)

Stockholm, Workwomen's Homes in. Meyerson, Gerda. Social Tidskrift March, 1901.

Street Lighting. (See under **Lighting.**)

Street Railways. (See **Transit Facilities.**)

Streets, Street Building, Street Cleaning, Trees in City Streets. (See also **Garbage Disposal, Parks, Paving.**)

See Baltimore, Chicago, Columbus, London, New York, St. Paul.

Cleaning. "Die Städtereinigung." Büssing, F. W. (Heft 2, Technische Einrichtungen der Städtereinigung.) Stuttgart, Bergsträsser, 1901. 8vo, 520 pp. 24m.

——. "A Century of Street Scavenging." McColl, D. Mun. J. 10:5 (Jan. 4, 1901).

——. "Methods of Cleaning Pavements." Innes, H. C. Cal. Mun. 4:85 (Apr., 1901), Mun. ngng. 20:202 (Apr., 1901).

"Parking Wide City Streets." Johnson, Robert L. Engng. N. 45:363 (May 16, 1901).

"Signs, Municipal Street." Lee, Elmer. Mun. J. & E. 10:78 (March, 1901).

"Trees, Street." Park & Cem. 10:252, 11:43 (Jan., May, 1901).

——. "What Trees for Streets." Lemmon, J. G. Cal. Mun. 3:206 (Jan. 1901).

"The Streets of Our Cities." Hansen, George. Cal. Mun. 4:134 (June, 1901).

Subways for Pipes and Wires. (See **Conduits.**)

Sweating. (See under **Labor and its Relation to the Municipality.**)

Sydney, N. S. W.

"Public Parks and Recreation Grounds, Sydney, New South Wales, Australia." Park & Cem. 10:256 (Jan., 1901).

Tammany Hall, (See **New York City.**)

Taxation, Municipal, Taxation of Franchises. (See under **Finance.**)

Tenement Houses. (See **Housing of the Working Classes.**)

"**Tokyo** City Water Works." Engng. (Lond.) Feb. 1, 1901.

Transit Facilities, Street Railways, Transportation Problem in Cities. (See also **Municipal Control.**)

See Berlin, Boston, Brussels, Budapest, Canada, Chicago, Darwen (Eng.), Dublin, Dudley (Eng.), France, Germany, Glasgow, Hamburg, Huddersfield, Italy, Leicester, Liege, Lisbon, Liverpool, London, Massachusetts, New York, Nottingham, Paris, Pennsylvania, St. Helen's, San Francisco, Sheffield, United Kingdom, Vienna.

"Consolidations of Street Railways." Vreeland, H. H. St. Ry. R. 11:3 (Jan. 15, 1901).

"Electric Distribution for Street Railways." Bancroft, C. F. Cassier's 20:75 (May, 1901).

——. "A Résumé of the Electric Street Railway." Crosby, O. T. St. Ry. J. 17:50 (Jan. 5, 1901).

——. "Combined Trolley and Conduit Tramway Systems." Connett, A. N. Ty. & Ry. W. 10:194 (Apr. 11, 1901); St. Ry. R. 11:284 (May 15, 1901).

——. "Progress in Electric Traction." Preece, William H. Engng. Times 5:266 (May, 1901).

——. "The Future of the Electric Railway." Behrend, B. A.; Wessling, A. G. Elec. W. & E. 37:82 (Jan. 12, 1901); Bell, Louis, St. Ry. J. 17:55 (Jan. 5, 1901).

——. "The Trolley Age." Johnson, Albert L. Sci. Am. Sup. Apr. 27, 1901.

"Horse to Electric Tramways, From." Mun. J. 10:135 (Feb. 22, 1901).

"Investments, Desirability of Tramway Securities as." White, J. G. Engng. Times 5:349 (May, 1901).

"Manager, The Position of the Tramway." Ty. & Ry. W. 10:75 (Feb. 7, 1901).

"Public Policy Concerning Rapid Transit." Hooker, George E. Pp. 182-198 "Pro. Milwaukee Conf." Philadelphia, National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

"Suggestions on How to Make Non-Paying Roads Pay." Cooper, H. S. St. Ry. J. 17:71 (Jan. 5, 1901).

"Tramway Progress at Home [Eng.] and Abroad." Surveyor 19:79 (Jan. 25, 1901).

Tunbridge Wells. "The First Municipal Telephone." Mun. J. 10:194 (March 15, 1901).

United Kingdom.

"A Manual for Overseers, being a Practical Treatise on the Appointment, Powers and Duties of Overseers, Assistant Overseers and Collectors of Poor Rates." Jenkin, A. F. (2nd Ed.) London, P. S. King & Son, 1901. 5s.

English Local Government. "Englische Localverwaltung. Darstellung der Inneren Verwaltung Englands in ihrer geschichtlichen Entwicklung und in ihrer gegenwärtigen Gestalt." Redlich, Josef. Leipzig, Duncker und Humblot, 1901. 8vo, 835 pp. 20 m.

"Legislation of 1900, Survey of the." Surveyor 19:83 (Jan. 25, 1901).

"Paris Councils Act, Five Years' Fruits of the." Fabian Society, Fabian Tract No. 105, 23 pp. 1d.

"Electrical Trades Directory and Handbook for 1901, Electrician." London, George Tucker, 1901. 12s. 6d.

——. "The Electrical Power Bills of 1900: Before and After." Madgen, Wm. L. Ty. & Ry. W. 10:149 (March 7, 1901).

"Engineering, The Legal Precedents of 1900 in Relation to Municipal." Conder, J. B. Reignier. Surveyor 19:72 (Jan. 25, 1901).

——. "The Position of the Municipal Surveyor." Humphreys, H. Howard. Surveyor 19:474 (Apr. 19, 1901).

Finance. "The Growth of Municipal and National Expenditure." Avebury, Lord. J. Royal Stat. Soc. 64:73 (March, 1901).

——. "Local Taxation." Lowther, James W. London, P. S. King & Son, 1901. 8vo, 16 pp. 6d.

History. "The Early Days of Local Self-Government." Frere, W. H. Econ. R. 11:231 (Apr. 15, 1901).

Housing in England. "Die Wohnungsnot und Wohnungsreform in England mit besonderer Berücksichtigung der neueren Wohnungsgesetzgebung." von Oppenheimer, F. Freiherr. Leipzig, Duncker & Humboldt, 1900. 8vo, 167 pp.

——. "A Housing Bill." Surveyor 19:503 (Apr. 26, 1901).

——. "Cottage Homes of England, The." Crotch, W. Walter. (2nd Ed., Revised and Enlarged.) London, P. S. King & Son, 1901. 12mo, 154 pp. Cl. 2s.

——. England, The House Question in. Tengdahl, Knut. Social Tidskrift March, 1901.

——. "Scotland, The Housing of the Working Classes in." Robinson, William. San. Rec. 27:311 (Apr. 11, 1901).

——. "The Housing of the Poor." Quar. R. 193:432 (Apr., 1901).

——. "The Housing of the Poor—Progress of the Question." J. Gas Ltg. 77:600 (March 5, 1901).

——. "The Housing Problem in the Towns." Knowles, C. M. Pp. 309-344 in "The Wholesale Societies Annual, 1901." 8vo, 534 pp. Cl. 4s. 6d.

Labor. "Municipal Works Department." Mun. J. 10:358 (May 17, 1901).

Lighting. "Depreciation of Municipal Electricity. Supply Undertakings." J. Gas Ltg. 77:674 (March 12, 1901).

——. "Municipal Gas Undertakings in Kent." J. Gas. Ltg. 77:548 (Feb. 26, 1901).

——. "Progress in Gas Lighting during the Past Year." Wood, Charles. J. Gas Ltg. 77:609 (Mar. 5, 1901).

Liquor Problem. "Municipalisation of the Drink Traffic." Mun. J. 10:303 (Apr. 26, 1901).

Municipal Control. "Electrical Undertakings during 1900, Development of Municipal." Surveyor 19:91 (Jan. 25, 1901).

——. "Municipal Activity in England." Watson, Elsie. Pol. Sci. Q. 16:262 (June, 1901).

——. "Municipal Trading in Great Britain." Ashley, Percy. Q. J. E. 15:458 (May, 1901).

——. "The Opposition to Municipal Socialism in England." Gibbons, Henry Johns. J. P. E. 9:243 (March, 1901).

——. "Stadteverwaltung und Munizipal-Sozialmus in England." Hugo, C. Stuttgart, Dietz, 1900. 8vo, 300 pp. Paper, 2 m.

——. "Statistics of Municipal Trading, The". Row Fogo, J. Econ. J. 11:12, 277 (March, June, 1901).

——. "Telephones, Municipal. Brocklehurst, F. Econ. J. 10:552 (Dec., 1900).

——. "Towards Municipal Socialism." Hardie, J. Keir. Pp. 289-308 in "The Co-operative Wholesale Societies Annual, 1901." 8vo, 534 pp. Cl. 4s. 6d.

Population. "The Growth of Towns." Mun. J. 10:353 (May 10, 1901).

Sanitation. "The Practical Guide to the Public Health Acts: A Vade Mecum for Officers of Health and Inspectors of Nuisances." Hime, T. Whiteside. London, Bailliere, Tindall & Cox, 1901. 15s.

Schools. "Shall School Boards be Abolished?" Mun. J. 10:219 (March 22, 1901).

——. "The Education Muddle and the Way Out." London, Fabian Society Tract No. 106, 18 pp. 1d.

"Sewage Purification in England, Recent Progress in." Fowler, Gilbert J. Dom. Engng. March 15, 1901.

Transit Facilities. "Corporations and Tramway Contracts." Ty. & Ry. W. 10:183 (Apr. 11, 1901).

——. "Electric Tramways—Progress in the United Kingdom, 1891-1900." Robinson, J. Clifton. St. Ry. R. 11:4 (Jan. 15, 1901).

——. "Legislation, Tramway and Electric Railway." Ty. & Ry. W. 10:78, 207 (Feb. 7, April 11, 1901).

——. "Tramways in Large Cities." Wordingham, C. H. Elec. R. (Lond.) Jan. 18, 1901.

——. "Tramways: Their Workings and Accounts." Tresilian, R. S. Ty. & Ry. W. 10:178, 234 (Apr. 11, May 9, 1901).

——. "Working Expenses of Electric and Cable Railways." Ty. & Ry. W. 10:174 (Apr. 11, 1901).

"Water Supply." (Editorial.) Eng. (Lond.) Jan. 4, 1901.

——. "The Law of Underground Water." Mansergh, James. Surveyor 18:598 (Nov. 23, 1901).

United States.

"A Municipal Program." Deming, Horace E. Ann. Pol. Sci. 17:431 (May, 1901).

"American Municipal Difficulties." Chap. 30 in "Talks on Civics." Holt, Henry. New York, Macmillan Co., 1901. 12mo, 493 pp. Cl. $1.25.

"An Essential Element in Good City Government." Bonaparte, Charles J. Pp. 88-93 "Pro. Milwaukee Conf." Philadelphia, National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

"A Year's Municipal Development." Woodruff, Clinton Rogers. Am. J. Sociol. 6:532 (Jan. 1901); Mun. J. & E. 10:208 (June, 1901).

"J. Devlin—Boss." Williams, Francis Churchill. Boston, Lothrop Pub. Co, 1901. 12mo, 520 pp. Cl. $1.50.

"La Corruzione nel Municipio Americano." Bachi, Riccardo. La Riforma Sociale 11:195 (Feb. 15, 1901).

Law. "Municip'al Corporation Cases Annotated." (Courts of Last Resort.) Michie, Thomas Johnson. Charlottesville, Va., Michie Co., 1901. 4 vols., 8vo, 796, 792, 793, 798 pp.

——. "Rights of Abutting Owners as Against Telepone and Telegraph Companies." Hamilton, G. C. Elec. Review 38:559 (May 4, 1901).

"Municipal Government in the United States." Ford, John. No. Am. May, 1901.

"Organization of Municipalities and Scope of the Convention." Rowe, L. S. Pp. 7-19 in "Pro. 1st. Conv. L. of Pa. Cities, York, 1900."

"Political and Municipal Legislation in 1900." Whitten, Robert H. Ann. Pol. Sci. 17:244 (March, 1901).

"Proceedings of the Milwaukee Conference for Good City Government. * * * Sept. 19-21, 1900, Milwaukee, Wis." Woodruff, Clinton Rogers, Editor, Philadelphia, National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

"Small City and the Municipal Program, The." Sparling, Samuel E. Pp. 127-135 "Pro. Milwaukee Conf." Philadelphia, National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

"Some Features of the New Municipal Program." Butler, John A. Pp. 94-105 "Pro. Milwaukee Conf." Philadelphia, National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

Charities. "American Philanthropy of the Nineteenth Century." Lee, Joseph. Char. R. 6:176 (March, 1901).

"Electrolysis to Gas Mains, A Court Decision as to Responsibility for Damage by." Am. Gas. Lt. J. 74:45 (Jan. 14, 1901).

Finance. "Taxation of Corporations in N. Y., Mass., Pa., and N. J." Whitten, Robert Harvey. Bulletin 61, New York State Library, May, 1901. 8vo, 193 pp. 25 cts.

——. "Taxation of Quasi-Public Corporations." Howe, Frederic C.; Judson, Frederick N. Pub. Am. Econ. Ass. 3d S. Vol. II, No. 1, p. 94 (Feb, 1901).

"Housing Conditions and Tenement Laws in Leading American Cities." Veiller, Lawrence. New York, Tenement House Commission, 1900. 8vo, 59 pp. Free.

"Library in the United States, The Public." Putnam, Herbert. International M. 3:57 (Jan., 1901).

Lighting. "Gas Matters in the United States." J. Gas Ltg. 77:24, 330, 606, 939 (Jan. 1, Feb. 5, March 5, April 9, 1901); Am. Gas Lt. J. 74:82 (Jan. 21, 1901).

Mayor. "An Essential Safeguard to Executive Responsibility." McAneny, George. Pp. 136-146 "Pro. Milwaukee Conf." Philadelphia, National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

——. "Does the New Municipal Program Confer Dangerous Powers on the Mayor?" Richardson, Charles. Pp. 119-126 "Pro. Milwaukee Conf." Philadelphia, National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

Municipal Control. "All Sorts of Municipal Ownership." Woodruff, Clinton Rogers. Outlook 68:111 (May 11, 1901).

——. "Le funzioni municipali negli Stati Uniti d'America." Bachi, Riccardo. La Riforma Sociale 10:1123 (Nov. 15, 1901).

——. "Municipal Trading Problem in America." J. Gas Ltg. 77:935 (Apr. 9, 1901).

——. "Statistics on Private and Municipal Ownership of Water, Gas and Electricity, Recent." MacVicker, John. Pp. 84-86 in "Pro. 4th Conv. L. Am. Mun. Dec. 1900."

——. "American Gas, Water and Electric Lighting Statistics." J. Gas Ltg. 77:675 (March 12, 1901).

"Pavements in 47 Cities during 1900, Average Cost of Asphalt." Engng. N. 45:139 (Feb. 21, 1901).

Population. "Growth of Cities in the United States: 1890-1900." Weber, Adna F. Mun. Aff. 5:367 (June, 1901).

Proportional Representation. "Representation of Different City Interests in the Council." Foulke, William Dudley. Pp.147-156 "Pro. Milwaukee Conf." Philadelphia. National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

"Sanitation in the United States, Municipal." Chapin, Charles V. Providence, R. I., Snow and Farnham, 1901. 8vo, 970 pp. Cl. $5.

"Water Meters on Water Consumption in the Larger Cities of the United States, The Effect of." Bailey, George I. Engng. N. 45:279 (April 18, 1901).

——. "Meters and Water Consumption in the Larger Cities of the United States." Engng. N. 45:285 (April 18, 1901).

Vienna.

"Gas Works of Vienna, The Central." Herrmann, Th. J. Gas Ltg. 77:874 (April 2, 1901).

"Tramways in Vienna." Mun. J. 10:121 (Feb. 15, 1901).

Wallingford, Conn.

"A Practical Illustration of Municipal Ownership in a New England Community of 10,000 Inhabitants." Perkins, Thomas C. Pp. 20-23 in "Pro. 4th Conv. L. Am. Mun. Dec. 1900."

Washington, D. C.

Art. "Landscape in Connection with Public Buildings in Washington." Olmsted, Frederick Law, Jr. Am. Arch. 71:19 (Jan. 19, 1901).

"Electrolysis in the District of Columbia." Powell, Grahame H. Am. Gas Lt. J. 74:287 (Feb. 25, 1901).

"Water Purification, Experts' Report on, at Washington, D. C." Hering, Rudolph; Fuller, George W.; Hazen, Allen. Engng. N. 45:159, 202 (Feb. 28, March 2, 1901).

Water Supplies of Cities. (See also **Municipal Control.**)

See Albany, Altoona, Babylon, Birmingham, Boston, Cincinnati, Constantinople, London, Louisville, Madison, Newmarket (Eng.), New York, Norfolk, Paris, San Francisco, Tokyo, United Kingdom, United States, Washington, Whitestown (N. Y.)

"Ancient Water Works." Mansergh, James. J. Gas Ltg. 77:29 (Jan. 1, 1901).

"Filtration, The Mechanical System of Water." Davis, Floyd. Mun. Engng. 20:2 (Jan. 1901).

"Meters on Water Consumption, Effect of Water." Bailey, George L. Mun. J. & E. 10:176 (May, 1901).

——. "The Cost of Installing a Water Meter System." Holmes, A. L. Mun. Engng. 20:280 (May, 1901).

"Public Water Supplies." Perry, George R. Pp. 59-62 in "Pro. 4th Conv. L. Am. Mun. Dec. 1900," Mun. Engng. 20:31 (Jan. 1901).

——. "Public Water Supplies." Turneaure, F. E.; Russell, H. L. New York, John Wiley & Sons, 1901. 8vo, 746 pp. Cl. $5.

"Self Purification of Polluted Water Courses." Reynolds, Arthur R. Engng. Rec. 43:250 (March 16, 1901).

——. "Bacterial Self Purification of Streams, The." Jordan, Edwin Oakes. Sci. Am. Sup. March 2, 1901.

——. Pollution and Self Purification of Streams. "Die Verunreinigung und Selbstreiningung der Flüsse." Nussbaum, H. C. Gesund. Ing. March 15, 1901.

Spring Water. "Nouvelle Méthode d'Etude des Eaux de Sources." Marboutin, Félix. Mem. Soc. d. Ing. Civ. Feb. 1901.

"Water Works Distribution. A Practical Guide to the Laying Out of Systems of Distributing Mains for the Supply of Water to Cities." McPherson, J. A. New York, D. Van Nostrand Co., 1901. 8vo, 154 pp. Cl. $2.50.

"**West Bromwich [Eng.]**, Sewage Treatment at." Surveyor 19:258 (March 1, 1901).

"**Whitestown, N. Y.**, The Sand Filters at." Stone, William G. Engng. Rec. 43:299 (March 30, 1901).

"**Winnipeg, Manitoba**, The Municipal Asphalt Plant at." Ruttan, H. N. Am. Gas Lt. J. 74:689 (May 6, 1901), Engng. N. 45:261 (April 11, 1901).

Wisconsin.

Finance. "The Relation of the Simplified State Accounting System to Wisconsin Municipalities." Gilman, Stephen W. Public Policy 4:135 (March 16, 1901).

"Fire Departments in Wisconsin Cities, Paid." Spencer, John C. Municipality 2:31 (June, 1901).

"Garbage in Small Cities, Special Report on the Collection and Disposal of." Municipality 2:12 (May, 1901).

Government. "The New Municipal Program and Wisconsin Cities." Stark, Joshua. Pp. 106-118 "Pro. Milwaukee Conf." Philadelphia, National Municipal League, 1900. 8vo, 286 pp. Cl. $1.

Home Rule. "State Boards of Control, with Special Reference to the Experience of Wisconsin." Sparling, Samuel E. Ann. Pol. Sci. 17:74 (Jan. 1901).

"**Wolverhampton [Eng.]**, Municipal Abattoir." Mun. J. 10:119 (Feb. 15, 1901).

Worcester, Mass.

"Parks and Playgrounds of Worcester." Draper, John. Worcester M. 1:231 (April, 1901).

"Sewerage and Sewage Disposal of Worcester." Eddy, Harrison P. Worcester M. 1:47, 111 (Jan., Feb., 1901).

"**Zurich**, The New Gas Works at Schlieren." J. Gas Ltg. 77:20, 137, 201, 265 (Jan. 1, 15, 22, 29, 1901).

BIOGRAPHICAL NOTES

OF THE

WRITERS IN MUNICIPAL AFFAIRS FOR JUNE, 1901.

EDWARD HAGAMAN HALL.—Born in Auburn, N. Y., November 3, 1858. Graduated from Auburn Academy, 1877, with Classical Honor. On editorial staff of Norwich, Conn., *Morning Bulletin*, 1877-1888, last three years as editor-in-chief. Associate editor of Waterbury *Republican*, 1888-1889. Many years correspondent of New York *Tribune*. Spent 1889-1899 in publishing, printing and literary work in New York. Editor or author of several books and pamphlets, mostly on historical subjects. Designed official historical medal commemorating consolidation of Greater New York. Attached to the late State Commerce Commission as special statistician. Member of Sons of the American Revolution; Deputy Governor of Order of Founders and Patriots of America; member of National Arts Club; Secretary of American Scenic and Historic Preservation Society.

ADNA F. WEBER.—Born in Concord, Erie county, New York, in 1870. Prepared for college in the public schools of Salamanca; graduated from Cornell University in 1894; as a post-graduate pursued studies in economics and social science in German and American universities and attained the degree of Doctor of Philosophy at Columbia University. His thesis on the "Growth of Cities in the Nineteenth Century" won the Grant Squires prize for research in sociology which is awarded by Columbia University once in five years. Is at present the chief statistician of the New York State Department of Labor.

W. A. SOMERS.—Received education in the common schools of St. Paul. Was engaged as a civil engineer on government and railroad work in the northern part of that state for some five years until 1872, when he took a position of first assistant in the office of the City Engineer of St. Paul. Was first assistant and finally City Engineer until 1887, when he took up the real estate business, which he followed for several years. In 1891 was asked to take charge of the assessor's office of Ramsey county and during the next year worked out the system described in this number.

HIRAM BENJAMIN LOOMIS.—Born in Hartford, Conn., June 29, 1863. Received early education in the public schools of that city and in 1885 was graduated from Trinity College with the degree of A. B. After spending two years, one in the study of law and the other as a teacher in the Hartford High school, entered the Johns Hopkins University in the fall of 1887 and took post-graduate work in physics, chemistry and mathematics. During the year 1889-1890, held the fellowship in physics in that university and in 1890 received the degree of Ph. D. From 1890 to 1893 he was instructor in physics in the University of Wisconsin; from 1893 to 1897, assistant professor in physics in the Northwestern University, Evanston, Ill. At present is connected with the Medill High School, Chicago. Has been quite prominent among the Chicago advocates of the single tax.

CLINTON ROGERS WOODRUFF.—Born December 17, 1868, of a long Philadelphia ancestry. Graduated with first honors from the Central High School and from the collegiate department of the University of Pennsylvania; also studied law and graduated from the law department of the University of Pennsylvania. Was treasurer and secretary of the Philadelphia Municipal League from 1891 to 1897 and is now its counsel. Is also secretary of the National Municipal League, the Pennsylvania Ballot Reform Association and the Public Education Association. Is a member of the Executive Council of the Pennsylvania Civil Service Reform Association, trustee of the American Institute of Civics, vice president of the American Humane Union, and connected in various capacities with many similar organizations. Was a member of the Pennsylvania Legislature, session of 1897, and was appointed to two of its most important committees, those on the judiciary and general municipal corporations. Although engaged in the active practice of law in Philadelphia, is a frequent contributor to the leading magazines and newspapers.

WILLARD WINSLOW.—Born in Boston, April 30, 1865. Graduate from Boston Latin School. Has been in lumber business since 1880 in nearly every state of the Union. Has some experience in amateur politics here since 1892.

WILLIAM J. GAYNOR.—Born in 1851, Whitestown, N. Y. Early education was meager, but later studied in Boston and began the practice of law in 1875. Has argued many prominent cases in criminal and constitutional law. Secured the conviction of John Y. McKane and has always been prominent in the movement for better city government in Brooklyn and New York state. In 1893 was elected justice of the supreme court, which position he is now holding. Has been offered several times nomination for Governor and other high offices by the Democratic party. Is a frequent writer on legal and other subjects for the best magazines.

MILO ROY MALTBIE.—Born near Hinckley, Ill. Received his early education in the public schools and the preparatory department of Upper Iowa University, graduating from the college in 1892. Spent one year in the graduate school of the Northwestern University, devoting particular attention to municipal government. Was awarded, in 1893, the Dewey prize of $100 in Political and Social Science, and the Cushing prize of $100 in Municipal Government for a dissertation upon *The City Government of Chicago.* From 1893 to 1895 taught higher mathematics and economics in Mount Morris College, Illinois, leaving there to accept the university fellowship in administrative law at Columbia University. Received the degree of Ph. D. from the latter institution in 1897, having given particular attention to administrative law, public law, economics and municipal government. After graduation, was chosen secretary of the Reform Club Committee on Municipal Administration and editor of *Municipal Affairs.* Spent the summer of 1899 studying municipal problems and conditions in Europe. Prize lecturer upon municipal government in Columbia University, 1900. Has written *English Local Government of To-Day; Central Administrative Control in England; The English Local Government Board; Municipal Functions; A Study of the Development, Scope and Tendency of Municipal Socialism;* and several papers upon other municipal subjects appearing in various magazines.

VOLUME IV, No. 1, MARCH, 1900.

PUBLIC SERVICES.

PUBLIC OWNERSHIP AND THE SOCIAL CONSCIENCE. By R. Fulton Cutting.
SHALL AMERICAN CITIES MUNICIPALIZE? By John G. Agar.
MUNICIPAL TELEPHONES IN AMSTERDAM. By Ph. Falkenburg and Dr. Van Zanten.
STREET RAILWAYS IN BRITISH TOWNS. By Robert Donald.
GLASGOW'S MUNICIPAL TRAMWAYS. By Milo Roy Maltbie.
SYRACUSE WATER SUPPLY By James H. Hamilton.
HISTORY OF PUBLIC FRANCHISES IN NEW YORK CITY. By Gustavus Myers.
MUNICIPAL OWNERSHIP OF DOCKS IN NEW YORK CITY. By Bird S. Coler.
STREET RAILWAY PROBLEM IN MILWAUKEE. By John A. Butler.
BOSTON MUNICIPAL SUBWAY. By B. L. Beal.
SKANEATELES WATER WORKS COMPANY v. VILLAGE OF SKANEATELES.

VOLUME IV, No. 2, JUNE, 1900.

ADVERTISING RUN MAD. By John DeWitt Warner.
MUNICIPAL EMPLOYMENT AND PROGRESS. By John R. Commons.
SHALL SAN FRANCISCO MUNICIPALIZE ITS WATER SUPPLY? By A. S. Baldwin.

MUNICIPAL POLITICS.

IS A THIRD PARTY NECESSARY IN REFORM WORK? By John Jay Chapman.
INDEPENDENT POLITICS. By A. S. Haight.
MUNICIPAL REFORMERS IN PARTY POLITICS. By John W. Keller.
COUNCIL REFORM IN CHICAGO. By Edwin Burritt Smith.
NON-PARTISAN MUNICIPAL ELECTIONS. By George G. Wright.
POLITICAL CLUBS IN PRUSSIAN CITIES. By Robert C. Brooks.
RELATION OF THE CHURCH TO MUNICIPAL POLITICS. By Thomas R. Slicer.
SETTLEMENT HOUSES AND CITY POLITICS. By Robert A. Woods.
THE SALOON IN POLITICS. By Bolton Hall and Ernest H. Crosby.

VOLUME IV, No. 3. SEPTEMBER, 1900.

A NEW CHARTER FOR GREATER NEW YORK. Editorial.
RAPID TRANSIT SUBWAYS IN METROPOLITAN CITIES.
LONDON GOVERNMENT REORGANIZED. By Percy W. L. Ashley.
WATER SUPPLY OF GREATER NEW YORK. By M. N. Baker.
TAXATION OF FRANCHISES IN MASSACHUSETTS. By James R. Carret.

PUBLIC LIGHTING.

STATE CONTROL OF CORPORATIONS. By James Blake Cahoon.
PUBLIC SUPERVISON IN MASSACHUSETTS. By Walter S. Allen.
GAS LIGHTING IN GREAT BRITAIN. By Milo Roy Maltbie.
MUNICIPAL LIGHTING IN HALLE, A/S. By Edmund J. James.
PUBLIC GAS WORKS IN ITALY. By Riccardo Bachi.
MUNICIPAL ELECTRIC LIGHTING IN DETROIT. By John Archibald Fairlie.

VOLUME IV, No. 4, DECEMBER, 1900.

NEW YORK CONDITIONS.

THE SINKING FUNDS OF NEW YORK CITY. By Edgar J. Levey.
COST OF GOVERNMENT IN CITY AND STATE. By Milo Roy Maltbie.
MUNICIPALITIES AND VICE.
CIVIL SERVICE. By George McAneny.
CITY CLEANSING. By Charles A. Meade.
PUBLIC SCHOOLS. By William H. Maxwell.
DEPARTMENT OF WATER SUPPLY. By William F. King.
WORK OF THE BUILDING DEPARTMENT. By Julius M. Mayer.
CHARTER REVISION REPORT. By Henry De Forest Baldwin.
ADVERTISING AND ADVERTISERS. By John DeWitt Warner.
MUNICIPAL PRINTING IN BOSTON. By Harvey S. Chase.

MUNICIPAL AFFAIRS.

ISSUED QUARTERLY.

VOL. V. No. 3. SEPTEMBER, 1901. WHOLE No. 19.

MUNICIPAL BETTERMENT IN THE NEW YORK CITY ELECTION, - - - JOHN DEWITT WARNER 625
A CONSTRUCTIVE PROGRAM, - - JOHN MARTIN 641
WHAT THE LOW ADMINISTRATION SHOULD DO.
AMEND THE DEBT LIMIT, - - - BIRD S. COLER 664
A MODEL CITY, - - - WILLIAM S. CRANDALL 670
A SUGGESTION FOR THE LOUISIANA PURCHASE EXPOSITION.

DECORATION OF CITIES.

PARKS AND TREE PLANTING IN CITIES, FREDERICK W. KELSEY 675
PLANT DECORATION, - - KATHARINE C. BUDD 684
MUNICIPAL SCULPTURE, - - CHARLES LOPEZ 696
DECORATION OF PUBLIC BUILDINGS, CHARLES M. SHEAN 710
BEAUTIFYING COLUMBUS CIRCLE, N. Y., - A. P. DOYLE 722
STREET SIGNS AND FIXTURES, - NELSON S. SPENCER 726
ADVERTISING SIGNS AND ART, - MILO ROY MALTBIE 738

BOOK REVIEWS, - - - - - - - - - 754
BIBLIOGRAPHICAL INDICES, - - - - 765
BIOGRAPHICAL NOTES, - - - - - 777

NEW YORK:
REFORM CLUB, COMMITTEE ON CITY AFFAIRS,
52 WILLIAM STREET.

LONDON: P. S. KING & SON, ORCHARD HOUSE, WESTMINSTER, S. W.
PARIS: SOCIÉTÉ NOUVELLE DE LIBRAIRIE ET D'EDITION, 17 R. CUJAS.
THE HAGUE: MARTINUS NIJHOFF.

Entered at the Post Office at New York, and admitted for transmission through the mails as second-class matter.

Copyright, 1901, by the Reform Club Committee on City Affairs.
All Rights Reserved.

MUNICIPAL AFFAIRS.

VOL. V. SEPTEMBER, 1901. No. 3.

MUNICIPAL BETTERMENT IN THE NEW YORK CITY ELECTIONS.*

BY JOHN DE WITT WARNER.

That the late mayoralty campaign in New York for control of the city's policy for the next two years was of critical importance and greatest interest scarcely needs argument; and from the more prominent newspapers of the city it would seem that the so-called "better element" of New York's own citizens are persuaded that what is known as the "protected vice" issue was that upon which the result turned; and that they are ignorant of the extent to which those in responsible charge of the reform propaganda found other issues stirring, and their presentation an essential element of the canvass.

Normal Conditions.

Manhattan and the Bronx have a normal Tammany majority of from fifty to seventy-five thousand—far greater than any possible reform majority in the other boroughs. Moreover, so extensive is the power of borough and county officials, elected by Manhattan and the Bronx exclusively, that were all else lost to the present administration, it would still be well intrenched could it carry Manhattan borough—though losing the mayor. Again, the normal Tammany majority is so largely in what are known as the down-town Manhattan districts, of which the greater number are in the "East Side"—the most thickly-populated district in the world, a separate city, or, rather, an aggregation of separate cities—that the vital question in reform politics was as to how the "East Side" vote can be won. Without it, Manhattan borough must be lost, Tam-

*[The issue of this number having been delayed, this article speaks as of the time it was handed in—the end of the second week in November.—EDITOR.]

many left intrenched in the position of greatest menace to the city and most loot for the Tiger.

Reform Agencies.

Upon two agencies fell the responsibility for handling this situation: the Citizens Union and the Vigilance League and Society for Prevention of Crime, the campaign work of the latter two being combined.

Contrary to general understanding, the Citizens Union is not a strong political organization, with from a hundred to one hundred and fifty thousand of loyal members, but a small central committee with a skeleton organization in each assembly district, making a special enrollment of voters for each campaign, and serving rather as a headquarters for non-partisan citizenship than as a continuous political center; but pledged in any campaign into which it enters to furnish a ticket of such character as to invite the votes of good citizens, irrespective of party. The leader of its campaign in 1897 had been Mr. Reynolds, head of the University Settlement on the "East Side," selected largely because of his intimate acquaintance with political and social conditions among the wage-earning masses. This year he co-operated with Mr. R. Fulton Cutting, prominent both as a business man and practical philanthropist, upon whom was placed the responsibility for leadership.

The leader in the campaign activities of the Vigilance League and Society for the Prevention of Crime was Hon. Frank Moss, ex-police commissioner of the City of New York, and by an extraordinary variety of experience, unnecessary to detail here, peculiarly well posted both as to "vice" conditions and as to the temper of the great masses of "East Side" voters, upon whom depended the success or failure of reform.

Work in special organization for 1901 campaign was started in the latter part of the year 1900. The problem, appreciated by all, was as to how the great "East Side" vote could be secured for reform and against the present administration.

To Mr. Cutting fell the organization of the Citizens Union which afterward became the nucleus about which rallied the several factors of the fusion that elected Mr. Low; and to Mr. Moss was left the preparation asd issue of the literature by which voters should be approached and convinced.

Issues Not the Same Everywhere.

The work was thus put in the best of hands, but with apparent misunderstanding on the part of the more prominent of the amateur reformers, and the body of the reform press itself. They were united in the one idea that the abstract question of good government with special reference to breaking the alliance between the police and vice, should be the sole issue of the campaign, and above all that no "socialistic" suggestion for city betterment should be made, lest conservative citizens be frightened and refuse to support reform or subscribe to the campaign fund. This was notwithstanding (probably because) that, in respect of municipal service, New York is so backward that her more well-to-do citizens have no conception of latter-day methods. Her "East Side" population, however, embracing as it does a larger foreign contingent than inhabits any other city on earth, includes a peculiarly large proportion of immigrants from European and British cities that are as progressive as we are backward. The result is that, on questions of city progress, it is the cultured and well-to-do classes of New York among whom ignorance and narrowness most prevail; and the wage-earning masses, largely of foreign birth, who are more enlightened and progressive in spirit.

Moreover, the stocks and securities of the corporations or the combine of corporations that control our street railways, stage routes, gas and electric light franchises, heat and power transmission privileges, are so widely distributed and their directorates so influential that, while the well-to-do were in great majority sincere in their desire for better government, every bank and insurance company, and, generally speaking, every business concern, had in its directorate representatives of those whose interest it was to have corrupt government that they might profit at the city's expense. Again, their tens of thousands of stockholders and investors, uneducated in city government, were sincere in denouncing as socialistic any attack upon private franchise monopoly.

The problem was a puzzling one—how to keep for reform the support of the property classes, without which, at this time, reform could probably not have succeeded; and to gain for reform the voting masses who were intelligently interested in precisely the program to which the financial backers of reform were most opposed.

The solution has been a most interesting one. Without duplicity, but equally without appreciation on the part of those discordant reform factors of each other's position, a two-faced campaign was in fact carried on. The personal and financial support of the well-to-do classes was attracted by what they considered a campaign from which questions of progressive policy were excluded, while the enthusiasm of the "East Side" was stirred and its votes canvassed for reform on behalf of the very issues which reform's up-town advocates considered "socialistic" and dangerous.

The extent to which the different classes and localities of New York are ignorant of each other, and the increasing extent to which, in the flood of campaign literature, each pays little attention to any except of the sort specially suited to him, partially accounts for the possibility of such a campaign as that of which some developments are noted below.

Mr. Cutting's Policy.

In November, 1900, Mr. R. Fulton Cutting, President of the Citizens Union, thus suggested its policy:

> What the people demand is, not retrenchment, but growth; not reform, but progress. Discarding our negative issues, the anti-imperial, anti-silver, anti-trust, yes, even anti-boss, we must adopt a great positive programme, *pro bono publico.*
>
> Municipal ownership of public utilities and municipal initiative in social betterment now characterize the administration of many of the best governed cities of the world, and the principle is not only economically sound, but morally valuable. It will ultimately prove to be a great school of citizenship, creating a sense of civic responsibility, awakening civic pride, and kindling civic patriotism.
>
> While it is necessary to enforce the laws restricting vice, vice will never be conquered by repressive measures. We must give the East Side the moral equivalent to fresh air and pure food. Public baths, with added accommodations for social enjoyment for the use of patrons and others, under proper restrictions, will solve the liquor question more rapidly than high license. The tenement house evil will never be remedied by restrictive measures that increase the cost of building and lessen the rental value. * * *
>
> Good wages, an eight-hour day, and decent homes for the wage-earner are more important to the welfare of the capitalist than the triumph of monopoly; more small parks and playgrounds for the many, than a costly speedway for the few. At the same time the liberal treatment of capital actively employed in business is life to the proletarian. From the recognition of mutuality springs the consciousness of vital solidarity. That is the first step in social progress and progress is the great reformer.

On the East Side this was received with enthusiasm. Up-town it drove the reformers and the reform press into hysterics, of which

the following from the New York *Times* of November 30, 1900, is a fair example:

If President Cutting's statement of views is to be regarded as an official proclamation of principles there are great numbers of men in New York, men whose co-operation is essential to the success of the campaign, who will decline to have anything further to do with the Citizens' Union.

We must remind Mr. Cutting that the campaign will be undertaken for the purpose of electing an honest and capable man mayor of New York. If his Citizens' Union wishes to undertake a campaign for the exploitation of fads and the promotion of the raw theories of visionaries, we hope he will give timely notice in order that no time may be lost through misapprehension.

It is the hope and intention of the serious-minded, practical man of this city to establish and maintain in the City Hall for four years a business office for the management of the affairs of this municipal corporation. They have no intention of setting up an experiment station for socialism. * * *

Taxpayers and citizens of New York will be entirely content to call Mr. Fairchild, or Mr. Rives, or Mr. Coler, or Mr. Crimmins to the high office of mayor without requiring any pledges about public utilities or the endowment of symphony orchestras for the poor. * * *

—the wild irrelevance of the last sentance indicating somewhat the nightmare conjured in the mind of the average well-to-do New Yorker by the mildest suggestion of municipal betterment.

It is probably as well that Mr. Cutting was not an editor; hence not committed to daily publication of his views. As it was the up-town reformers assumed that (what they considered) universal condemnation had doubtless cured him of his notions, and Mr. Cutting, having thus announced his views, continued to press them in quarters of which his up-town friends heard little and knew less.

Mr. Moss Follows.

December 11, 1900, appeared the first number of the New York *Vigilant*, a campaign newspaper conducted by Mr. Moss, and largely circulated in the "East Side." In his first number the leading article was an exposé of the successful control of Tammany officials by the "combine," which, it charged, had prevented the construction of the city conduits for the accommodation of electric wires, etc., leaving this service a private monopoly controlled by the combine. This indicated the view of another man specially qualified to judge as to what would most appeal to those whose votes were needed.

In the same number, however, were included telling articles in exposure of protected vice, and in view of the revelations soon made by the Committees of Five and Fifteen, the fact that the

Vigilant for some time largely devoted itself to protected vice issues, may have been rather the natural result of circumstances than any yielding on the part of Mr. Moss to the shrieks of protest against socialism, which, though they had not affected the activities of the Citizens Union, had largely silenced those who planned them.

The Chamber of Commerce Falls Into Line.

Meanwhile the new City Charter Commission was sitting, and, on its request for suggestions, a committee of the Chamber of Commerce having carefully inquired into current problems of municipal administration, apparently without suspecting themselves of "socialism," recommended to the Chamber that it favor a continuation of municipal water supply, and the assumption by the city of gas and electric light service, quoting in favor of this item of their report the experience of London and foreign cities.

This recommendation was approved by the Chamber and the committee authorized to present it to the charter commission, as was done in October, 1900, with the instant result of a flutter among the corporate dove-cotes, and such general pressure upon the representatives of culture and finance upon the charter commission, that when it reported in December, it not merely ignored the Chamber's recommendation, but went out of its way to deprecate any extension of the scope of municipal service other than the establishment of a city printing office, and the "conservative" interests again felt themselves rescued.

Citizens' Union Platform.

Thereafter, until in the April following, the up-town reformers were little disturbed by "socialistic" attack; but then came a rude awakening. The Citizens Union, having perfected its organization in every district of Greater New York and duly constituted a representative central committee, held primaries in every district for delegates to the city convention to lay out a plan of campaign, adopt platform, etc. The membership of the central committee was well known and considered conservative; but it had been for months in touch with every class and condition of citizens, and in daily discussion of the practical questions raised, until, probably unknown to itself, it had become perhaps the most radical committee of equal standing that had ever existed in the city. And at an ideally enthusiastic and representative convention of all

classes of citizens, interested only for the good of their city, after full discussion and amendment of the draft proposed by the platform committee, it adopted a platform, the following planks of which set conservative New York a-shiver:

(2) Mismanagement, favoritism and dishonesty must go. But this is not enough. *We must have positive benefits for the people. In particular we demand:*

Enough room in the schools and enough teachers; an extended library system.

A sure and ample supply of pure water for every part of the city.

Streets kept as Waring kept them.

More public baths open winter and summer; more public lavatories.

More playgrounds for children; more small parks.

Enforcement of the tenement house laws.

The enforcement of the tax laws by an equal scale of valuation for unimproved and improved real estate.

Judicious increase of direct empolyment of labor by the city in its public works.

Constitutional laws, by the amendment of the constitution if necessary, which shall secure to all workmen upon municipal works, whether on the pay-roll of the city or of contractors, the payment of the prevailing rate of wages for an eight-hour day.

Adequate communications between the boroughs by ferries, bridges and tunnels.

Ownership of our own water supply, and acquisition for just compensation of gas and electric light supplies, to be operated by the city if adequate merit-system safeguards are provided.

Retention by the city of ownership of all its franchises and no leasing of the same except for short periods, so that the increase in value shall be for the people's benefit.

Stringent supervision of all corporations using city franchises, so as to insure adequate service at reasonable rates.

All these demands can be met without adding a cent to the city taxes if we can have honesty and economy of administration. It is not the tax rate, but the waste and misuse of the taxes when collected that prevent progress.

The Citizens Union convention was not so easy to denounce as had been Mr. Cutting as an individual; but the "reform" press rose nobly to the occasion, the New York *Sun's* editorial of April 27th, 1901, being perhaps representative:

On Thursday night the Citizens' Union adopted a platform, which, coupled with the preliminary debate, shows the defeat of Tammany to have been one of its last desires, and the convention to have been rather an opportunity for promulgating the freaks of political fancy of which the "reformer's" mind is the irrepressible parent, than a meeting to prepare plans for solidifying a triumphant majority of anti-Tammany voters.

If all the shallow, emotional, unbalanced and expensive eccentricities of the social theorist were not embodied in the platform, it is because those controlling its formation—and it is needless to say that they were past masters in convention bossism—hesitated to give them full frankness of expression.

Attitude of Candidates.

All through the Summer and from that time until the reform

(fusion) ticket was finally nominated, the cause of reform was constantly imperilled by the necessity of keeping together the Conservatives upon whom it was dependent for journalistic and financial support, and the Progressives without whose votes a reform campaign would be futile. The final result was a candidate for mayor who had been regarded as progressive, but who deprecated discussion of details; a comptroller who represented the most radical views in favor of municipal ownership and operation; and a president of the board of aldermen who promptly gave in his adhesion to the Citizens Union platform, but did not feel called upon to do more—while tickets for borough officers were similarly made up, Mr. Cutting having meanwhile declined a unanimous nomination for mayor by the delegates of the very elements that had denounced his views.

Municipal Betterment Agitation.

Meanwhile the revelations, first of the Committee of Five and then of the Committee of Fifteen, had grown more and more startling and sickening, until, if there ever was a time when the moral issue alone would have seemed powerful, it was so, and increasingly so, in this campaign. And if there ever was a man who appreciated this, and was equipped and minded to use it, it was Frank Moss. Under all these conditions, however, early in the Summer, even he appreciated that something more was needed to give best effect to the canvass on the critical "East Side."

Upon April 11, 1901, the *Vigilant* published as a special feature filling one-half the total space, illustrated advertisements of the "Great Croker Department Store," "successors to Tweed & Company," known as "Tammany's Greater New York"—the first "department" of which was thus noted:

FRANCHISES FOR SALE.

These intangible properties are of inestimable value. They will make Crœsuses of their fortunate possessors. By proper arrangements (U. KNOW) they can be obtained in perpetuity with little or no rental or percentage. These rich investments are under the nominal care of two of the heads of departments, but the princes who desire to deal in them would better go direct to headquarters or to the executive office.

Some of the wealthiest and most powerful men in New York had their beginnings in similar investments.

MONOPOLIES.

We will explain the principles on proper request.

References: METROPOLITAN RAILWAY, NEW YORK TELEPHONE

CO., THE SUBWAY CO., MARTIN B. BROWN & CO, and various others.

The next number of this publication had for its leading article a full statistical statement under the heading—

THE STREET RAILROADS AND THE COMMISSIONERS OF ACCOUNTS.

Franchises Grabbed. Taxes Unpaid.

There are some big grabbing corporations in our city, that make alliances in both political camps, and succeed in getting most valuable privileges in the streets for nothing.

The street railroads are such corporations.

They pull with equal facility Mr. Carroll and Mr. Quigg.

MUNICIPAL OWNERSHIP.

Municipal ownership of lighting plants, street railroads, model tenements, lodging houses, etc., is an established fact in many thriving cities.

It cannot be in New York as long as Tammany controls.

—municipal progress planks of the Citizens Union program above quoted, being given special prominence.

While the June numbers (12 and 13) were devoted *exclusively to a demand for municipal betterment* and explanation of the main idea proposed, e. g.:

A CITIZEN'S PLEA.

Calls for a Programme of City Progress.

Why is there so much talk about putting down vice and so little about providing living conditions for the working people of this great city?

Mark what I say, you can't get the city away from Tammany next fall on any mere anti-vice cry. If it is to be done it will be by offering the mass of the people pledges to do something of real value, to make the daily conditions of their life better and happier, such as honestly enforcing the new tenement house laws, providing more free open-air amusements for them, especially on Sundays, and, above all, pushing forward the rapid transit work and the building of the long-needed new bridges, one to Brooklyn and one to Jersey.

Look at what the London County Council has just done—*voted* $6,000,000 *to build municipal model houses, to be let at cheap rents, out in the suburbs of London.* Look at the *four-cent* fares on the London tunnel road. There is not a single place where a working man or woman can live in or near New York city and have decent traveling accommodations to and from his or her place of work—not one.

BACK-TO-BACK TENEMENTS.

* * * Of all the great social problems of modern times incident to the growth of cities, none is claiming public attention in a greater degree than that of the housing of the working people.

Mere *housing,* however, that is, merely providing shelter, does not solve this problem. It only aggravates it by herding men and women together under conditions which inevitably tend to produce disease and crime.

It is only by providing *homes* for the working people—that is, by providing them with *shelter of such a kind as to protect life and health and to make family life possible, free from surroundings which tend to immorality;* that the evils of crowded city life can be mitigated and overcome. Nor does it concern only the

working people who are to be sheltered. It is of vital moment to all the inhabitmen.

According as the workers are provided with better or poorer homes will the government, morals and health of the city be better or worse.—Tenement House Commission.

GERMAN CITIES.

American observers are impressed by the splendid efficiency of German city governments in the prosecution of public works and enterprises. * *

All goes on with the combination of close economy and generous foresight.—(Albert Shaw.)

Berlin has more than thirty square miles of farms, where the city's sewage is used for fertilizer. The most luxuriant crops are produced.

Nearly all of these cities own their gas-works, which are wonderfully successful.

They are getting the greater part of the electric light plants.

They carry on savings banks and pawnbroking; altogether in the interest of the people.

They have advanced technical education, so that it is open to all the children.

When will New York learn the needed lesson that shall put its selfish and tyrannous rulers out of power?

In London they have a street lamp which provides a stream of boiling water and dispenses tea, coffee and cocoa. The heat of the lamp warms the water, and by dropping a half-penny in the slot a gallon of boiling water may be had. A penny brings you milk, sugar, tea, coffee, etc. The light and heat is provided by the city, which co-operates with a private corporation that furnishes the rest.

BATHS IN GERMAN CITIES.

In Germany many of the cities have public bathing houses.

The movement began at Göttingen, in Hanover. There baths were built in the public schools for the use of the children.

(Superintendent Maxwell, of the New York public schools, is begging that baths may be put in the schools for the children, and Tammany makes fun of it.)

Forty German cities followed the example of Göttingen.

Berlin has two handsome public baths, with swimming pools. Hamburg has three. Other cities follow.

The facts presented in this issue of the *Vigilant* show that while New York has 3,500,000 people, spends twice as much money for its government as London with 5,500,000 population, it has the worst tenement houses and the most crowded, unhealthy and uncomfortable tenement districts in the world, and that while New York's boss, mayor, council, and officials pay no attention to the needs of the working people, the big and little cities of Europe (and many American cities) are exerting their best thought and efforts and spending large sums of money to improve the conveniences of their people, to lessen their burdens and to increase their comforts.

The first edition of these numbers having been exhausted a second edition was published as a great double number, and aroused such interest that it was decided to continue the subject of municipal betterment as practically the exclusive subject of the

August numbers—14 and 15—which were accordingly thus finished and issued with bold-face heading:

Our last issue (two numbers together), published on June 29th, presented the subject of MUNICIPAL BETTERMENT. It was a marked success. Two editions, amounting to 55,000 copies, have been printed, and we will have to print more, to supply those who wish to circulate it among their friends. Therefore we will continue on the same line.

—with additional data as to extent of municipal service in foreign cities, and special chapters with illustrations of public parks, public baths and better tenements.

So marked was the success of this, that the September issues—16 and 17—were similarly treated, and issued under the heading:

THE CITY FOR THE PEOPLE.

THIRD DOUBLE PAPER ON CITY BETTERMENTS.

In this number public bath houses and laundries receive special attention.

In the next number, sewage and refuse destruction, technical education and workingmen's dwellings will be discussed particularly.

If these matters interest you, be sure to secure copies of these issues. They are valuable.

In the final October (special campaign number) the subject was continued with special reference to workingmen's dwellings and baths, as well as street cleaning, refuse handling ,etc.

Thus, though the reform press and the "uptown" reformers were avowedly and sincerely attempting to keep the specific issue of municipal betterment out of the campaign, this was the one which was being given more and more prominence throughout the great East Side by those best posted as to conditions there, and to whom the campaign, in this most critical of all localities, had been left.

The Franchise Issue Forced.

Though the candidate, Mr. Low, was exclusively proposed by the Citizens Union, the course of the conferences had been such that his selection was not considered a special triumph of that body; and so much were the fusion managers opposed to "confusing issues" (by laying stress upon the program for city betterment) that, with Mr. Low's "cordial adherence" to the general principles announced, but reservation of freedom of action as to details that might call for decision, the campaign opened; while leaders of the most powerful single factor in the fusion assured financial interests that it would not "stand for" Citizens Union "socialism."

As the campaign progressed, however, not merely did those

responsible for the East Side canvass make this so-called "socialism" the leading feature of their campaign literature, as above noted; but, one after another, speakers found audiences, especially of wage earners, so responsive to suggestions in this direction that, without concert, city betterment was becoming more and more discussed, until, happily for fusion, at the most critical portion of the campaign—only a few weeks before election—the issue, happily for fusion, was forced by its opponents.

A coterie of financiers, commonly known as the "Whitney Combine," had gained control of the street railway, gas and electric light, subway, and power franchises, and its influence was notorious—the leading features of the combine itself having but lately been the subject of a remarkably clear article in a leading monthly. Its relations with our city government had of late apparently been strained; and its application for a grant to it of the one remaining possibility for a surface railway trunk line through the most important part of the city—of simply incalculable value, as fortifying its position against private rivalry or municipal railroads—had for many months been hung up in the board of aldermen.

A Quid Pro Quo.

A few weeks before election, upon no notice, Alderman John T. Oakley, Tammany candidate for sheriff, moved that the preliminary grant be made to the Metropolitan Street Railway Company (the Combine's corporation), which was actually done; the motion being "snapped" through much in the way that it had been attempted to "railroad" the infamous Ramapo steal the year before. Together with the news of this in the press of the following morning, appeared, in fac simile, Mr. Whitney's adhesion to the Tammany candidate for mayor—thus demonstrating the practical identity of time between the passage of the ordinance and the writing of the letter, and the mutual confidence (or lack of it) between the high contracting parties (old acquaintances). To protected vice had now been brazenly added, by the enemy itself, the issue of looted franchises. How impudent and daring was this move, can best be suggested by quoting from an interview, published the next day by a responsible newspaper, with Thomas J. Dunn, former sheriff of New York County, a man high in the councils of Tammany, and active in the canvass:

"Whitney's letter must please Tammany?" was suggested to Mr. Dunn.

Why, it stands to reason that it does.

It looks as if the corporations were all for Tammany and Shepard; doesn't it?

Every d—— one of them! Why shouldn't they be, when they know which side of their bread is buttered?

Does that include Gould for the Manhattan (Elevated R. R.)?

Yes, Gould and Belmont, who is behind the tunnel (subway) and all of them.

Corporate Methods in Politics.

These well-known conditions were promptly discussed—perhaps never so tersely put, however, as immediately following election, by the dean of the Tammany leaders, Senator George Plunkitt, of the XVII. Manhattan district, as noted by the New York *Tribune*, November 13, 1901:

"In 1897 Tammany took possession of Greater New York, and we have been pretty comfortable, thank you. How are we going to get through the next two years? Speakin' for myself, I can say that no Tammany man in my district will suffer for coal. I've got lots of patronage outside of politics. I've got three hundred men on the street railroads, and I've got a pull with big corporations that employ thousands of men, and they will take care of Plunkitt's followers until we get back into office."

—upon which the *Tribune* thus commented:

To Senator Plunkitt and his followers the outlook is not pleasant. He admits that frankly, but he hopes that the corporations Tammany has befriended in its season of power will come to his rescue, in view of benefits to come should the Tiger once more return to the city crib. This is a practical confession that the corporations have received benefits from Tammany to which justice and the law would not entitle them. In other words, Tammany has helped them to rob the city, and in the hope of Tammany's aid in the future to secure more unlawful plunder it is expected that the recipients of past favors will help to keep the thieving machine in a workable condition.

—while in connection with Mr. Whitney's adhesion to Tammany, coincident with the latter's grant of the Elm Street franchise to the Metropolitan Railway Company, the interesting situation was made more so by the statement of Mr. Sheehan, former Tammany leader, that the normal contribution of the latter company in a city campaign was $100,000, and the suggestion which Mr. Vreeland, President of the Metropolitan Railway Company, had just made to the National Convention of Railway Accountants—

There are certain items in your accounts, gentlemen, which, when carried on your books, look very well from the standpoint of a street railway accountant. But they might better be left out, as they would be hard for the president of the road to get around if called upon before certain public bodies to explain what they meant.

With fuel thus added to an already warm campaign, it became hot beyond precedent, and its climax was reached when Mr.

Whitney himself—Tammany's disclosed ally—and Senator Platt, the Republican corporate sponsor, being shadowed, were next week found in secret conclave, as was publicly announced by the fusion candidate for district attorney. This was followed by the assertion of a Republican district leader of prominence and repute that orders had been passed among the employes of the Metropolitan Railway to favor the Tammany candidate for district attorney. Under ordinary circumstances this would have ruined the canvass by demoralizing its Republican contingent; but, with the voters thus stirred and the search lights thus thrown upon the tactics of the franchise corporations, the fusion prospects, which had been only hopeful, promptly so improved as to turn the betting odds on the city ticket from favoring Tammany to decidedly against it; while on the Manhattan borough and New York county ticket—specially involved by the Whitney deal and the disclosures of Jerome and Goddard, and which had been considered hopeless—bettors, especially on Jerome himself, began to offer one to four, then one to three, and by election day one to two.

Victory Won—The Explanation.

The returns made plain that so far from hurting their cause, Mr. Jerome and Mr. Goddard had in all probability added the one impetus that achieved its success. For not merely was the city ticket elected, but every New York borough and county candidate was elected as well, with Jerome running so far ahead of his ticket as to suggest how much his personality had helped it; while, as the figures were studied, the reform press were prompt to recognize that the city's salvation had been found in the ballots of the great East Side.

From *Evening Post*, Nov. 6, 1901:

What cuts the Tammany chiefs to the heart, and what should mightily cheer on those who give themselves to the work of reform with a passionate faith in democracy, is the fact that Tammany was repudiated in its own strongholds Those "dangerous classes" on the East Side, those foreign born voters, who could never be got to do anything but regard the suffrage as a marketable commodity, and into whose heads it was absurd to expect the notion of civic pride or good government ever to enter—they are the electors who most wonderfully responded to the moral appeals of the canvass. Take the Eighth Assembly District as an instance. This is Martin Engel's hunting ground. It was there that the "red light" iniquity most abounded; there that vice flaunted itself most securely, and that crime was boldest; there, too, that the police were most used in defense of criminals and to the

thwarting of justice. But it is also in this district that the University Settlement lifts its beacon; there that the Citizens' Union and the Woman's League sent workers. * * *

From the same paper, Nov. 9, 1901:

It was not simply that Tammany was beaten, but that it was flung out of its own fortresses below Fourteenth street. This is the great fact, the great good cheer, which has most impressed the country. Upon this intelligent foreign observers have commented. It was a demonstration that the ignorant voter, the democrat wielding a weapon of suffrage, to which his hands were untrained, could yet be approached with argument and persuasion and example, and made to see as straight and vote as true as his more delicately clad and comfortably fed fellow-citizen of the West Side.

Present Situation.

Not for a moment is it suggested that municipal betterment or opposition to private monopoly in public franchises alone or mainly carried the day. Whatever might have been hoped from these issues had they been exploited in time, that of protected vice was the one upon which the varied elements that combined to nominate the reform ticket actually got together; and the writer is the last to depreciate the first bridge successfully crossed by fusion.

As noted above, however, the fact is that as the campaign grew hot those entrusted with the canvass in the most critical quarters found it necessary to add and use to the utmost a specific program for city betterment; that campaign developments forced to the front and (happily for reform) made vital the issue of the people against franchise corporations; and that the result, especially in the East Side vote, showed the live interest thus aroused, and left no doubt as to popular feeling.

Great is the opportunity and responsibility of the new administration thus suggested. While Mr. Low has prudently reserved freedom of action as to details, his full acceptance of the principles of the Citizens Union platform has now been indorsed by the voters of the city, a very large proportion of whom, including just those whose continued support is indispensable to reform control of city policy, consider themselves promised a radical, progressive policy, on many details of which their minds are already set. It is fortunate that these campaign expectations, so far as they were put into definite form, were so general as those formulated by Mr. Cutting, and so moderate as those with which under Mr. Moss, the *Vigilant* was filled; and that the gauntlet has been thrown down

before franchise corruption by champions so able to back their defiance as are Judge Jerome and Captain Goddard.

The writer has no question but that they can be and will be substantially carried out, or well progressed before the end of Mr. Low's term. More important, however, is the principle thus to be illustrated, and the inevitable demands for its extension as fast as our people shall test its limited application now assured. Bedeviled as are our city affairs by state and national politics, it would be rash definitely to predict; but it now seems as certain as can be anything that the campaign just over is but a skirmish when compared with the pitched battle by which, for all time to come, will probably be decided within the next few years whether the city shall administer its franchises, or its people be plundered and its politics debauched by franchise corporations.

A CONSTRUCTIVE PROGRAM:

WHAT THE LOW ADMINISTRATION SHOULD DO.

By John Martin.

In the preceding article, Mr. John De Witt Warner has shown that the people of New York in November last voted for a constructive, progressive policy. In the following article, it is proposed to set out some of the items of such a policy that can at once be undertaken.

All-the-year-round Public Baths.

For summer swimming, New York has unsurpassed natural provision in her North and East rivers. Access to them and precautions for decency and safety are alone necessary to make them serve the purposes of pleasure and cleanliness; and the administration needs only to guard against the monopoly by commerce of every foot of water front (especially on the upper reaches now being developed), and to put in good order and increase in number the present floating baths to have at the disposal of stalwarts an unexcelled refreshment for scorching days.

But open-air bathing is possible only two or three months in the year, and plenty of women and children are not sturdy enough to take it even then. During nine out of the twelve months for everybody and for the whole twelve months for many people, indoor private baths are needed. Personal cleanliness for protection from disease is as necessary for the health of the community as street cleaning and removal of garbage. Public baths should follow public sewers; they both belong to the service of health and decency. In the provision of this sanitary requisite, New York is many years behind advancing cities of Europe, in spite of the insistence of her medical men and sanitarians on the need for this further step in the warfare between science and disease-breeding dirt.

The necessity is urgent, for the private bathing facilities are

scant indeed. The Tenement House Commission of 1894 "took a census which showed that out of a total population of 255,033 investigated only 306 had access to a bath." The remainder could never take a wholesome, refreshing, enjoyable tubbing all over their bodies, but must suffer the imperfect washing that the cramped facilities of the tenement allow. It was found that fifty-five lodging houses with sleeping accommodation for 6,372 had no bath at all. Their inmates must go as dirty as they came.

Since that investigation little improvement has been made, though the newest tenements of a good class contain baths free to the tenants. Ninety-six per cent. of the houses in New York investigated by a committee in 1897 had no bathrooms.

These indications of compulsory dirtiness are appalling when we remember that dignitaries and delicate ladies, even mayors and commissioners, must mix with tenement dwellers in street cars, and that disease germs are more democratic than the American constitution.

To meet the need it was tardily decided in 1897 to erect one bath in Rivington street, but Mayor Van Wyck's administration showed little interest in the project (they got their punishment on November 5 last), and for over three years the work of construction was dragged out. At last the bath was opened in the spring of this year, with the usual Tammany condition that it should cost annually nearly double the legitimate amount.

But this solitary specimen, ludicrous in its loneliness, only whets the appetite for more. It is a mere suggestion to the half-washed or unwashed millions of what a self-respecting community should provide.

What Other Cities Are Doing.

At Boston, Mass., the Dover Street bath, a handsome building worthy of a great municipality, provided 399,099 baths in 1900, one-third of them for women and children, and the cost was only $12,697. In addition thousands bathe at the municipal spray baths in East Boston and at the swimming pools which are maintained to supplement the twenty-one floating and beach baths.

Chicago is a smoky, sooty city and perhaps needs more baths than clean and sunny New York. Certainly it provides more. It has four all-the-year-round baths now open, at which 600,000 baths

each year can be supplied; and schemes are afoot for erecting still more.

Buffalo has had one municipal free bath for four years, and has recently opened another. Even little Yonkers was three years ahead of the empire city in its supply.

But we must still go abroad for the most encouraging examples of municipal enterprise in this direction. London is the only rival to New York for supremacy, as the capital of the world, and London has proved her superior civilization by generously multiplying her public baths. She has now thirty-seven open and five others in course of erection. Most of these are splendid buildings fit to arouse warm civic pride. One of the newest in Saint Pancras has four great covered swimming pools and one hundred and thirty tub baths with the most recent improvements, besides accommodation for fifty women to do their family washing with the best appliances. Though London is not so rich as New York, and costs much less to govern, the public authorities have already invested $6,375,000 on baths and wash-houses and show no signs of weariness in well doing. Last year nearly four and one-half million baths were taken at the municipal establishments; but the demand is not yet satisfied. When the wage-earners get a chance to raise their standards of cleanliness, like richer folks, they spread the taste and ask for further facilities. In this respect London is not exceptional among British cities. Liverpool is better equipped than London with baths in bewildering variety—vapor baths for both sexes, warm water, cold sea water, warm fresh water, swimming, slipper and tub baths, that are patronized by half a million people every year. Manchester has nine sets of baths, at six of which there are women's swimming baths, and at two, Turkish baths. Glasgow has seven splendid establishments, and Birmingham five.

Berlin is governed by an aristocracy, diluted with a minute dose of democracy. Three-quarters of the members of the municipal council are house owners; yet Berlin, the bureaucratic, is ahead of New York, the democratic. It has six sets of buildings with swimming halls, slipper and tub baths, all so managed as to yield a small annual profit.

Should Baths Be Free?

During the period of construction, when the cost of buildings

will be considerable if the supply is multiplied as fast as is requisite, there would be no injustice in charging a nickel for admission, to help meet current expenses, especially as long as the baths can be run to their full capacity by artisan families at that rate. Whether they shall ultimately be made entirely free, like the schools, or partly paid for by the customers, like the universities, is entirely a matter of expediency. My judgment is that just as the schools were made free after a probational period when fees were charged, so the baths should ultimately become the property of all the citizens, open freely to everyone, an essential part of the public sanitary equipment.

In Europe a small charge (generally four or six cents) is always made for a bath, not sufficient to cover the total expenses, but enough to reduce the burden on the taxpayers, and to give the recipient a sense of independence. Baths need not be part of the charity system, though, like universities, they can rarely be run without an endowment. At Chicago everything is free and each bath taken costs the city 3¼ cents. Buffalo follows the same rule. At Boston one cent is charged for towel and another for soap, but, both at Philadelphia and New York, the philanthropic societies who maintain bath houses find ready customers at five cents. For the baths in Rivington street, New York makes no charge.

Small Parks.

New York is well supplied with lordly parks for the people who ride and drive. Central, Van Cortlandt, Prospect and Bronx parks are delightful, spacious pleasure grounds, full of charming retreats and lovely roads. Riverside Drive, with its extension through Lafayette Boulevard and round to the Speedway, is one of the loveliest and longest trotting and riding paths in the world. But these are all too far away from the huddled crowds of the east and west sides to be available for them except on rare holiday occasions. They need recreation grounds nearer home, spots of green to refresh the eye; places where the breeze has a chance to blow on summer evenings; gymnasiums, where the boys and girls can exercise themselves the year through.

The supply of such small open spaces, close to the homes of the crowds, is woefully and disgracefully small. They can be counted on the fingers.

What New York Has Done.

During Mayor Strong's administration a beginning was made; a slum with a terrible history at Mulberry Bend was demolished and is now converted into a pretty resting place; Seward and Stanton parks on the east side were begun and are now (after many weary delays) nearing completion. But ten are needed where one has been supplied. They are far more urgently necessary than magnificent drives by the river or improved expanses in the suburbs for the rich. Social workers nearest to the people have striven hard to get one added here and there during the last four years, sometimes through the city and sometimes through the legislature, but in vain. Even the levelling of ground already bought has been denied because it would cost a few hundred dollars; while millions have been spent on lordly provision for a few thousand drivers of fast trotters. One of the first acts of a progressive administration should be a response to the cry of the children and their friends.

London's Lungs.

Other metropolitan cities, the rivals of New York for the leadership of the world, have added to their great parks, the old-time appendages of royalty, a set of smaller people's parks, near to their homes and unpretentious enough for their easy enjoyment.

In London the great West End parks (Hyde, St. James' and Regent's) are open freely to the people, but controlled by a royal ranger. Besides these there are under the control of the county council no less than 19 parks, 33 gardens and 37 open spaces, a total of 89 places that give breathing space and pleasure to all parts of the city, and in further addition a number of small public recreation grounds under the management of the local borough councils. Some of them, like Battersea park, have an area of nearly two hundred acres and are laid out with the taste and luxury of a ducal estate. Others, like Hampstead Heath, are wide, breezy moors left in their natural beauty and big enough to give roaming space to thousands on holidays. But the thought of the city for its lowliest citizens is best evidenced by the thirty-one parks and open spaces, each under three acres in area, which are dotted about the crowded districts under the control of the central authority, in addition to a number of others which the local authorities own. These can be used by thousands without taking a car ride; they are so close as

practically to become additions to the cottage and tenement homes.

Open-Air Recreation Grounds.

In the utter famine of open-air recreation grounds furnished by the city itself the Outdoor Recreation League and the League for Political Education in Manhattan and the Society for Parks and Playgrounds for Children in Brooklyn have tried heroically to fill the vacancy. By the summer of 1900, they had eleven grounds equipped, mostly on vacant lots which were loaned or hired for a small rent. These were typical of the scores of gymnasiums that New York should make a part of the public service. They were usually supplied with swings, seesaws, sand courts, basketball, awnings and light gymnastic apparatus. They proved that the cost to the city would be a bagatelle compared with the advantage to the children. In Brooklyn a playground for a summer season of eight weeks was equipped and maintained for $500, a sum which includes the cost of a trained director and assistant and yet amounts to only six cents per capita for the children who attended. In Manhattan the total expenses for four grounds for a year, with three of the grounds open all the twelve months and well attended every day, is about $9,000. For these sums, trifling compared with the cost of the viaduct for extending Riverside Drive, for instance, the city saves by the improved health of the youngsters and the repression of the criminal tendencies of the lads, to say nothing of the fun they all get. A policeman at the Sixty-eighth street grounds, in one of the roughest neighborhoods in the city, declared that it had greatly improved the behavior of the young rapscallions; that window smashing and mud-throwing had given place to orderly playing. And these lads, potential criminals if left without opportunities for manly sport, showed their preference for order by pleading with the gymnastic instructor last spring to get the ground open early.

Here again London and other great cities set the example which we ask the new administration to follow. In London, there are no less than thirty-two open-air municipal gymnasiums for children, besides six which adults also may use. These recreation grounds are open all the year round from nine o'clock in the morning till an hour after sunset. Frequently the gymnasiums for the two sexes are separate that the boys' rougher sport may not exclude the girls from using the apparatus.

A few weeks before the election, when Mayor Van Wyck was asked to support the granting of an appropriation for the maintenance of the grounds which the Outdoor Recreation League has established, he angrily complained that they would be asking for vaudeville next, and that circuses ruined Rome. Crushed by this classical reference, of course the philanthropists were subdued. The same week the London county council was asked for a contribution of $175,000 towards a public park in Fulham, one of the boroughs of London, and refused to vote the money until the plans should be altered so as to include provision for a public gymnasium.

The contrast between the policies of the two cities could not be better illustrated. The results are also significant. Mayor Van Wyck, a week or two later, ran far behind his own defeated ticket; and the Progressive party in London has never once been beaten at the polls. Safety for a reform administration in New York also lies in generous progress.

Municipal Music.

Already New York supplies band music in the parks in the summer. This service might well be extended to include tunes for the children to dance to in the streets that are far away from parks, especially those in the upper districts, where traffic is thin. Particular streets could easily be closed to traffic for special hours on summer evenings, and they could be turned into a children's dancing ground by the supply of good music, which might be in tune without being expensive. A committee of such citizens as compose the Outdoor Recreation League, acting under the mayor's order, could easily double the enjoyment of the city's summer music, without greatly adding to its cost.

But it is in the entire neglect to provide winter music that the city has kept up its record for civic sloth and backwardness. In the schools some taste for music is wisely cultivated, and when the youngster leaves the class-room, the cheap music hall, with its vulgarities and inanities, is the only place available to satisfy his appetite.

Bands of music are good in summer, but why are they not equally necessary in winter? A little thought, enterprise and sound sense in our administrators would soon put good music within reach of multitudes. It need not be costly. In fact, in other cities it has

been made self-supporting. Boston has had its municipal concerts. London, at its twelve great polytechnics, enjoys subsidized concerts regularly. Leeds and Liverpool have long given organ recitals in their town halls. Battersea has had to turn hundreds away from its municipal musical evenings. Continental Europe subsidizes municipal opera houses with wise generosity. Glasgow turned a concert hall from private failure into a public success. Might not New York under Mayor Low inaugurate a series of People's Concerts directly under municipal control, which would prove that reform is not merely free from Puritanic gloom, but is eager to add to innocent gaiety.

What Should Be Done for the Schools.

In the recent campaign all parties, Citizens' Union, Republican, Democratic and Socialist, professed deep regard for the first line of defence in a democracy, the people's schools. In determining how far practical performance shall harmonize with pre-election enthusiasm, the Low administration will need to remember that the school record of Tammany in the last four years, with Mr. O'Brien as chairman of the board of education, has not been discreditable. To surpass that record and catch up with the city's needs, nimble activity and ready expenditure will be required.

First a place must be provided for every child within a short distance of his home. Schoolhouses, though they cost a lot of money, are one of the best investments the city can make. In the end the sums spent on them are saved on prisons and poorhouses. At present, in many parts of the greater city, the accommodations are deplorably deficient. Everywhere one of the first rightful demands of a child against the city must be satisfied by providing a seat for it in the people's schools.

Kindergartens for the Babies.

For the mites less than six years of age the ordinary grade school is just as unsuitable as beer and beefsteak would be for their dinner. Neither can they be cared for properly at home, where the mothers of the tenements are either out at work or too busy with their other domestic duties to teach the little ones. They need special schools, kindergartens, in which a teacher with temper and training of the right kind will develop their tiny bodies, minds and

characters and make school happier than a nursery by means of carefully devised games and stories.

Paris has not only more than 200 public maternal schools or kindergartens, but also special departments, *écoles enfantiles*, for children from six to eight years old and for timid, sensitive or backward older children, whom it would be stupid and cruel to put among the more robust and forward youngsters. New York also has made a creditable start with 115 classes in the public schools now going.

As the rooms of an ordinary residence can be used for kindergarten work, if more of these classes were opened in rented houses, the lower grades in the primary schools would be relieved and the expense for new buildings reduced.

High Schools—The Colleges of the People.

As leading countries become wiser and richer, the length of the school life is continually increasing. This is one of the surest signs of improving civilization. Even with the best elementary schools conceivable, a boy or girl cannot be well educated by the age of thirteen or fourteen. If they cannot go through college and continue their training, as the sons and daughters of the rich may do, till they are twenty or more, at any rate all the city's children should have a chance to enter the high schools, "the colleges of the people." As a rule, the longer a lad or lass is at school the better advance will they make in life. By increasing efficiency they will make a bigger return on the investment of extra schooling than on any other money their parents can spend.

Therefore, England, France, Germany and many States in the Union are equipping high schools in which the bright boys and girls who have graduated from the grammar school may get two or three years' more advanced instruction.

Parents and children in this city have shown their eagerness for high school training by increasing the attendance beyond all expectations and making the present quarters utterly inadequate. Not till June, 1900, was the first graduation made from the Manhattan High Schools. At present out of over three thousand pupils who graduate from the primary schools each year, 36 per cent. do not enter upon secondary school work.

Practical Subjects.

Every year there are new machines and better methods invented for our manufactures and commerce, and the firm that refused to adopt the improvements would soon fall behind and become bankrupt. So it is in education. Teaching used to be too "bookish." One evil effect was to make manual labor appear less dignified than bookkeeping and scrawling; and another to weary the children and make school uninteresting. These ills are remedied by making cookery and manual work part of the curriculum.

In London there are eighteen special centers for the teaching of cookery, all furnished with ranges and materials, where over twenty thousand girls are taking practical lessons extending over two years of their school course. In addition, there are ten domestic economy schools where, besides cookery, the pupils of the public schools learn simple nursing and housewifery in all its branches. Could more appropriate studies for the girls be devised? By trained methods the study gives the same intellectual exercise as history and geography; and it supplies, besides, most useful knowledge. The next generation of London artisans, at meal time every day, will have cause to bless the cookery classes.

Why should New York linger behind London? In some schools in Manhattan cookery rooms are equipped, but in Brooklyn, Queens and Richmond, none of the girls are taught to cook. What a sorry prospect for the future homes they are to set up!

In the public schools the foundation teaching in drawing should be given which will help towards the creation of skill and taste that will make New York independent of French art, as well as give the pupils sources of life-long pleasure. The special art teachers necessary to help the class teachers should be provided without grumbling.

The acquaintance with tools and materials and the habits of self-reliance, accuracy and neatness which workshop practice gives to lads are invaluable. Whatever trade or profession they may afterwards follow they will grapple with it better if they have taken a course of lessons in wood-work or metal-work. In London *all* the boys in the higher classes of the elementary schools attend at the wood-work centers for instruction by special teachers two hours a week. They delight in the change, and go away handier and

brighter, more pleased with their school life and fresher for their other studies. Shops for metal-work also have been started and will be rapidly multiplied.

New York should not be behind the 39 cities of Massachusetts and the other 130 cities of the Union that have introduced manual training in their public schools.

Trade and Technical Schools.

What shall we do with our boys? is a question that specially torments working-class parents of narrow means at the time the lads leave school. The old apprenticeship system has broken down to a great extent, and often the lad cannot get a chance to learn a trade. Even if he can, a great part of his time is wasted running errands and doing odd jobs in the shops, and it is nobody's business to give him systematic instruction. Now, unskilled or half-skilled laborers are not only sufferers themselves but a loss to the country. Fully skilled men produce more and so add to the nation's wealth; they get higher wages and so add to their own comfort.

Foreign cities are usually well supplied with technical and trade schools. Prussia has 248 schools giving instruction in painting, shoemaking, tailoring, baking, butchering, smithing, etc. In Berlin there are textile and joiners' schools and fifteen other trade schools, each for a particular trade. London has established a splendid system of technical education. There are twelve great polytechnics costing $625,000 a year, each giving instruction to apprentices and workmen not only in the scientific, artistic and mechanical principles that underlie all trades, but in specific industries such as bricklaying and brickcutting, watch-making, tanning, baking, plumbing, telegraphy, optical work, etc. Other trade schools, too many to detail, give rich chances to those who are actually working at a trade or intend to become bona fide apprentices.

Against this army of advantages for working boys and girls, men and women, what can New York set? Cooper Union, Pratt Institute and a few trades schools, supported by voluntary contributions; not a single technical institute maintained and regulated by the public as part of its civic equipment. On no side of our educational system is there a wider gap waiting to be filled.

her sons a chance to serve her skillfully she must start a system of technical schools without delay.

These schools would serve a double purpose. First, their evening classes would largely be reserved for men and women actually working at the trade taught in the class. These students would be given the opportunity to master all the branches of their work, to practice the newest methods and to understand the scientific principles involved. They would thus be freed from the semi-slavery of always doing one detail of work in the same monotonous way without comprehension of the whole machine into which it is to fit. An engineer would study theoretical and applied mechanics, practical mathematics, etc.; he would work in the shops with the best machinery, experiment on different kinds of engines with various motor powers and learn enough about mechanical drawing and geometry to be able to make and to read designs. Plumbers would be taught the laws of sanitation and of physics which they must apply in their work, as well as the modern methods of practical plumbing. Painters would learn all about colors, methods of mixing, the laws of design, etc. So we might go through all the trades. In each an energetic workman would be helped to broaden his mind, improve his powers and increase his wages.

Defective Children.

In the city schools there is always a small percentage of pupils pitiably defective in body and mind who cannot themselves profit from the ordinary methods and are besides a drag on their comrades. For such children separate classes have been started in London. Over 2,075 of these helpless children, after medical examination and conferences between their parents and the teachers, have been placed in special classes where their brains can be slowly developed and their school life made happy and easy. Berlin has forty classes where such children attend school two hours a day, and Paris also makes provision for backward or delicate children who are not strong enough for the primary schools.

New York might follow these excellent examples. Though her population may be acknowledged to be smarter on the average than Europeans, a small percentage of physically and mentally deficient children will be found even in New York.

Evening Play Centers.

Children, especially boys, are as serious a problem on winter evenings as on summer days. Left to themselves, without places of refuge, they will loiter at street corners, form gangs, graduate in vice and take the first steps towards the penitentiary. Therefore in 1900 and 1901 a few of the evening play centers were kept open during the entire school year. There the youngsters played games, practised gymnastics and read the books from the library, instead of wandering about the streets. Since the heated play-rooms were there already for day use the cost to the city was trifling.

In winter evenings play centers, debating and literary clubs were allowed to use class-rooms once or twice a week. This was a beginning which should lead to a wider use of the school buildings for social and club life. It is only business economy to employ the handsome and costly school structures to their full capacity. Social centers as rivals to the saloon are a prime need in the crowded districts. With class-rooms opened freely for the people to occupy with clubs of their own, with games provided, occasional concerts and the evening lectures already organized, the schools would become the public homes of the parents, neighborhood centers of refinement and pleasure.

Extension of Direct Employment.

The common acceptance of the view that the city should encourage a rising standard of living for its artisans was expressed in the law which required that the city itself and all contractors for the public should pay their workmen the prevailing rate of wages. That law laid down the rule that the city would not be a sweater; it would pay, and order to be paid, whatever the best private employers were paying, and so do justice to its direct and indirect employees, and at the same time insure that the men employed on its work were among the most skilful of their class. But the decision of the Court of Appeals that this law is unconstitutional has thrown down the breakwater and laid the workmen open to the devastating posed to the loss and danger of work badly executed by inferior men. This makes the question of direct employment or day labor doubly important. If the constitution forbids the city to exact from the contractor a standard quality of labor as it exacts a stand-

ard quality of iron and stone, the question arises: Why should not the city do more of its work itself and fix its own conditions and wages? "That would be ruinous." Not at all. On the contrary, experience has proved that contracts are costly and day labor actually saves money to the taxpayers as well as helps the workmen.

Trouble with Contractors.

The kind of trouble that the city has all the time with contractors is illustrated by the reports of the commissioners of accounts, who form a standing mayor's investigating committee. Their reports, based upon the observations of their engineers and often accompanied with photographs, show a steady and often successful effort by contractors to break their specifications for opening, regulating, grading, curbing and flagging streets. In a report dated June 23, 1899, on the regulating and grading of Tremont Avenue, they say:

> As an illustration of our contention that the contract specifications of the department of highways were being violated all over the Bronx, so generally that violations were the rule rather than the exception, we reluctantly accompany this report with the photographs showing a list of forty-four violations of the contract specifications.

In October, 1898, they reported:

> The complaints of our engineers and inspectors, of the very poor work now being allowed to be done in the borough of the Bronx, compels us to earnestly call your attention to the fact that something must be done to remove the same. * * * This contract work [St. Joseph's Street] is, in our opinion, not in an acceptable condition, and the accompanying photographs will illustrate that the contract work has not been properly done.

Other instances are quoted by them; all going to prove that under the contract system the city no more gets good work than the men get good wages.

Further, contracts and contractors are prolific sources of official dishonesty and political corruption. Day labor could not be more in politics than contracting is, for official records show that contractors with a pull appear to hypnotize the officials who examine their scamped work. The commissioners of accounts report: that,

> Our staff of engineers have been given the impression in conversation with inspectors on the work in the borough of the Bronx that the inspectors do not get the support of the department when endeavoring to have work properly done, the inspectors being told that if they cannot procure good work they had better

resign, or if the inspectors insist upon getting good work, they are transferred to minor pieces of work of short duration, and then not reappointed, which the inspectors claim is done through the influence of an association of contractors.

Nobody supposes that this leniency and neglect by the officials of the highways department were for love of the contractor's beautiful eyes. Political influence and financial dishonesty suggest themselves as explanations—influence and dishonesty almost inseparable from the contract system.

The remedy lies in the city becoming its own contractor for such work as sewering, grading and flagging, and in the formation of a construction department that shall do more and more of the city's work.

Has It Been Done?

Yes; it is done extensively, even in New York. Few people would wish to abolish the corps of "white wings" and rely on the contractor for cleaning the streets. Brooklyn kept him for that purpose long after Manhattan had abolished him, and Brooklyn's streets were never so well cleaned as they have been since the system of direct labor was instituted. And the cost now is no greater for the same length of streets cleaned, but the work is better done.

There is ample British experience of the benefits to workman and taxpayer secured by substituting day labor for the contract system. The London County Council, Battersea, Liverpool, Manchester, and other cities, found contracting so expensive and the work done so faulty that they are executing their own work, so far as possible, now. They gain in:

(a) Better quality of work.

(b) Standard rates of pay to the workmen.

(c) A reduced cost in many cases.

In American cities, also, the direct system almost always shows to advantage compared with the contract system. In Minneapolis, during the summer of 1900, all the city paving was laid by day labor. The men worked but 8 hours per day, and were paid the maximum market rates of wages, yet the cost per yard was less than in previous seasons under the contract system, and the city engineer says that the work was done better. In Denver a large sewer, which was constructed by day labor, was an entire success, financially and structurally, though it was undertaken in the winter, with the disadvantage of being intended principally to furnish work for the un-

employed. Brockton and Woburn have also adopted direct employment with advantage.

Conditions of Success.

Of course, day labor would be costly and inefficient, if professional politicians were put in charge of work they know nothing about. A bookmaker could not grade a road as straight as his own bets, nor a saloon-keeper construct a sewer that would carry off his own sour beer. Boss appointments would ruin a job, and the workmen would then be blamed and perhaps dismissed. Therefore, the merit system must accompany extension of city employment. Fair wages, skilled engineering, steady employment for good workmen, and no favoritism in giving the jobs—all these are needed to make day labor a success, and they can be guaranteed only by the merit system, well administered. Fortunately the new executive is favorable to effective civil service and therefore might safely extend direct employment and settle it on principles that would guarantee the interests of the taxpayers.

More Docks and Wharves.

Five-sevenths of the whole water-front is a city possession. About six miles have been improved with docks, piers and wharfs, partly by private owners who hold about one-third in value—$36,000,000 worth—of the shore of Manhattan Island. These private owners should be bought out and the whole front made municipal property, because, first, the commercial interests would be benefited, and, second, the transaction would pay the city well. (See data as given in Comptroller Coler's article *infra.*)

Any business man, on such a demonstration, would not wait a week before going ahead to annex all the similar property that could be secured. The city has powers of condemnation which it should use speedily. At present the private owners are unwilling to improve their property because they know it may be purchased at any time by the municipality, and the accommodations of the port therefore suffer. The sooner all the frontage is municipal property, the larger will be the financial reward and the better the facilities for shipping.

Street Franchises.

The supreme test of the temper and courage of the new administration will be its treatment of the franchise corporations. If it

shows a timid, cringing spirit or allows class sympathies to warp its judgment in favor of the rich franchise-robbers the voters will turn again and rend it. If it acts boldly as fighting attorney for the plain people, they will prove their allegiance to their friends by steady support at the polls as they have done at Detroit, Toledo, Kansas City and other places.

The attitude which public servants should adopt toward franchise corporations is simple. The officials are the appointed guardians of the public interest, chosen not to devise schemes for robbing the corporations, but, like an honest attorney, to get the best terms obtainable for their clients, the public. Their business is to look at every transaction from the point of view of the public, to discover the strong points in the case for the citizens and the weak points in their opponents' case. They need not be worried lest the interests of the corporations should be overlooked. So far these gentry have shown unlimited shrewdness, forethought and legal acumen; while courtesy forbids us to characterize the qualities often displayed by officials on behalf of the taxpayers.

In dealing with these corporations the administration should bear in mind these salient facts:—

(1) The corporations secured the franchises for peppercorn payments that are a minute fraction of the real value.

(2) The franchises are constantly increasing in value by the improvement and extension of the city, to which the corporations do not contribute.

(3) They have so far escaped payment of taxes on their property rights in the streets, though the private holder of a foot or two of land must always pay or relinquish his property.

(4) Since competition in lighting and in transportation has been abolished by the combinations which were concluded last spring, the consumers have no remedy for poor service and excessive charges by ordinary business methods.

(5) The corporations, in city elections, for transparent reasons, are always on the side of the corruptionists. "There is nothing in reform for us," as one of their managers declared.

(6) They take every advantage of the citizens. For example, the quality of the gas in Manhattan, according to both the official reports of the bureau of inspection of lighting and common com-

plaint, has seriously deteriorated since the consummation of the deal which abolished all possibility of competition and put the gas and electric lighting of the island under the control of the same little group of men as controls the street railways. This is the retort of the monopolists to the legal reduction of the price to a dollar, though President Gawtrey at the last annual meeting of the Consolidated Gas Company declared: "All the indications point to the maintenance of earnings on the present basis, notwithstanding the five cents decrease in the price of gas."

Franchise Taxation.

The Low administration is happy in coming into power at the moment it is possible to force from the franchise holders, at last, some contribution to the taxes under the Franchise Tax Law which has now been declared constitutional. Though the assessment of the values is in the hands of the state tax commission, the city officials can do much to enforce the city's rights.

(1) They can use all the powers of the corporation counsel's office in a strenuous fight for the payment of the sums now due from the street railways—surface and elevated—under their old franchises.

(2) They can oppose with all the might of the official power any legislative attempt to weaken the Franchise Tax Law.

(3) They can keep the state tax commission stirred up that the actual payment of the taxes now due under the Franchise Tax Law may be enforced. For this year the assessment of the franchise values is $211,000,000. *At a rate of 2.3537 per cent, the average rate for the four boroughs of Greater New York actually being paid by other property holders in* 1901, *this assessment would produce* $4,966,307, sufficient to pay in a few*a splendid addition to the city's net income,* years for many schools, recreation grounds, baths and other necessities.

(4) But this assessment is outrageously low. In an article in the *Atlantic Monthly* for October, 1901, Mr. R. R. Bowker, who was for several years acting executive of the Edison Electric Lighting Company of Manhattan, gives the details, from inside information, of the real values of such of these franchises as he knows perfectly. He proves that the street railway, gas and electricity works in Manhattan have cost for construction $125,000,000, could be

duplicated for $100,000,000, and are capitalized at $300,000,000, the securities having a market value of $400,000,000. The difference between their cost and their market value, which measures the value of the monopoly privilege on the streets is therefore $275,000,000. But their assessment is only $105,000,000 or 38 per cent. of their true value. Now other real estate is valued at fully 60 per cent., and often at over 75 per cent. of its market worth. Therefore the city administration has the duty, which should prove pleasant and profitable, to urge upon the state tax commissioners such an increase of franchise valuations as would put them on a par with private taxpayers, and would add other millions to the city's annual income.

The Gas Companies.

(5) It is plainly irrational to allow the gas combination to checkmate the legislative reduction of the price of gas by lowering the illuminating power. Therefore, the city administration should bring pressure to compel a return to the old standard of quality, by legislative enactment if necessary. Legitimate means of bringing the companies to reason can be found by earnest commissioners. Mr. Croker, by pressure from the departments, brought the Manhattan Elevated to its knees when he demanded undue privileges for his automobile company; surely since he was so powerful for illegitimate ends, a citizens' administration can find ways to fight the companies for public ends.

(6) The platform of the Citizens' Union contained an indorsement of the municipal ownership of city light. The fair taxation of the companies will reduce their unhealthy swollen values and make municipal ownership cheaper. The acquisition of such properties cannot be secured in a year, but the investigation of values and preliminary negotiations could be entered upon at once as an earnest of the sincerity of the Union's demand. The stock of the company is as full of water as a temperance advocate's toddy. At a hearing before a legislative committee in 1897, Mr. Henry Cross, who had made a special study of the gas question, showed that the capital actually paid in to the properties forming the Consolidated Gas Company was only $11,000,000.

This has been increased from earnings to 17 millions, and has been watered to $37,775,000. Since their organization these companies have paid in dividends an excess of 28 millions over 10 per cent. profit. The investors have had returned to

them more than 2¼ times the amount of their investment; and, moreover, have been given over $37,000,000 in stock, which is now paying a dividend of 8 per cent.

This dropsical inflation is possible on account of the 14 millions of franchise value for which nothing has been paid to the victimized city.

Of late years the use of water gas and the increasing value of by-products have heavily reduced the net cost to the companies. Prof. Edward Bemis, a reliable authority on the subject, told the committee of 1897 that 50 cents is a reasonable estimate of the cost of gas in New York, and that it can be sold for 75 cents at a good profit. Fuel gas can be sold for less.

At its annual meeting in 1901, President Gawtry reported that the sale of gas during the year had increased 13 per cent, and the number of meters in use by 17,000.

Many economies had been effected and prospects for 1901 are very bright; the sales of electricity increasing 19 per cent. over the preceding year, and I look for a greater increase this year. All the indications point to the maintenance of earnings on the present basis, notwithstanding the 5 cents decrease in the price of gas.

If this expectation is realized and the consumption of gas during 1901 is 18,000,000,000 cubic feet, the monopoly tribute that New York will pay this company for gas alone this year will amount to more than $4,500,000 over and above a fair return on the business.

How shall the people reduce this tribute and get for themselves some of the advantages of the improvements, economies and extensions? is a question to which a citizens' administration must find the answer. Every year adds value to the franchise. Why should not the people redeem their error and prepare for municipalization? They cannot blame the financial barons who run the companies for profit, and must be expected to make the best bargain for their company they possibly can. Had the voters shown moderate political capacity and honesty fifty years ago these fat spoils would have dropped into the public purse. They can still, however, secure the future certain gains by municipal gas.

Municipal Gas.

Experience of the advantage of city ownership and working of these services is abundant. Outside of London all the large towns of Great Britain, except five or six, have city gas works. The majority of the exceptions have partly atoned for their remissness

by starting municipal electric light works, which hold the private gas companies in check. Throughout the country municipal gas is sold at 10 per cent. less than corporation gas, the quality is 14 per cent. better and free meters are supplied oftener. The smaller price represents a reward of $3,300,000 a year to the consumers for their civic sense and enterprise, in addition to the annual net profits, that help to pay for schools, parks, concerts, etc.*

Glasgow has owned its gas supply since 1869, because it knew a company would not make the light cheap enough to encourage the majority of the people to use it lavishly. It hires out different kinds of stoves, gas heating and cooking appliances, and sells the gas at 54 cents, so as to give the consumer every inducement to make his home brilliant at night.

Berlin and over 374 other cities in Germany own their gas works, and throughout the Empire the principle of municipal ownership and operation of this service is coming to be generally accepted. In all countries, wherever it has been tried, the people are content.

Municipal Electric Light.

Progressive cities in the old world are running their own electric lighting plants also. In London the district of Shoreditch, a working-class quarter with no wealthy streets, sells the cheapest electric light in the metropolis, and yet makes a profit of $35,000 after paying interest on bonds and all other charges. Islington, Hammersmith, Hampstead and Saint Pancras all have successful municipal works, and eight other districts have plants in course of construction.

Throughout Great Britain the supply of electricity for light and power is fast becoming one of the leading municipal industries in the country. During the last few years its growth has been phenomenal. At the end of 1900, 198 works were in operation in cities, 130 under municipal management and only 68 in private hands. Out of 212 installations in course of construction, 99 belonged to public bodies, while 113 others had obtained the requisite authority from Parliament to establish municipal plants, and presumably will begin work very shortly Altogether, therefore, 343 districts have adopted the principle of public ownership and working of electric light plants. This rapid extension of city working results from the

*Maltbie, "Gas Lighting in Great Britain," Municipal Affairs, Sept., 1901.

striking social and financial success wherever public works have been established.

It should be noticed that these British towns do not simply light the streets. They supply all the power and illumination demanded by consumers, and run the business as vigorously and extensively as a private company would.

If a municipal plant for lighting the streets and public buildings only is contemplated, the results in other American cities are encouraging. In the State of New York alone there are at least twelve municipal plants, and there are over 300 in the States.

With a reform administration actually in power and a good civil service law actually in operation the old terror of official incompetence and laziness which has been the main argument against productive municipal enterprise is no longer excusable. If the administrators cannot trust their own competence and uprightness they are self-condemned and will naturally be dismissed with shame two years hence.

Street Railways.

(7) The Metropolitan Street Railway is so wealthy and powerful that some reformers fear to approach it lest a worse evil befall us. But the close alliance of Mr. Wm. C. Whitney, its chief owner, to Tammany Hall and its notoriously huge subsidies to Tammany's exchequer are sufficient indications that it is vulnerable to attacks by the city departments and that it is always hoping for more favors.

Though the Low government will, of course, not threaten it in a blackmailing or simply malevolent spirit, plain duty demands that no iota of favor be granted, no jot of concession be made without exacting every cent of compensation for the public. The Elm Street franchise, which comes up first for consideration, should rather be allowed to lie dormant than be awarded except on perfectly satisfactory terms. Changes of motive power, the permission to keep stationary cars on the streets near transfer points or power houses, the privilege of keeping their tracks open when all other traffic on a street is stopped by the Rapid Transit tunnelling—all should be made dependent upon some *quid pro quo* for the public.

Further, and more important, the city should make a close, official examination into all the franchises of this and other com-

panies to ascertain finally whether any of them have expired or can legally be revoked because they were not granted for any stated period, and to detect any city rights not being exercised which could be used as a club in fighting for fairer returns. Any private person that had even a suspicion that flaws in their titles gave him a legal chance to share at the treasury of a multi-millionaire corporation would push the investigation keenly. The city should be just as alert after its interests.

If these measures should yield only a poor return, the "resources of civilization are not exhausted." In their hostility to the public and to reform causes, the street railway magnates are frank and determined; a city administration has all to win and nothing to lose by reciprocating their sentiments.

AMEND THE DEBT LIMIT.

By Bird S. Coler.

The demands made to-day upon the public purse for public improvements in the great modern cities of the world would astound the publicists of past generations. The ever increasing cost and complexity of urban life is nowhere better exemplified than in the demand for increased assumption of public utilities by government. A city that does not respond to this demand is provincial; it is not a metropolis. Paris has been regarded as the typical modern city. It certainly was the first to make widely extended use of its credit for public improvements. And this fact has, by most observers, been cited with approval, and as a cause of its greatness.

How does the bonded debt of the city of Paris compare with that of New York?

The present net funded debt of the city of New York is $263,000,000; and in addition an indebtedness of $50,000,000 has been incurred for contracts and lands acquired for which bonds will have to be issued. The bonded debt of Paris is in round figures two billions of francs, or, say, $400,000,000. Yet New York of to-day is incomparably the richer city and better able to sustain the larger debt.

Some Limitations Advisable.

In the argument I am about to make for a more liberal policy affecting the city's power to issue bonds I wish to state clearly my appreciation of an adherence to the wisdom of constitutional restrictions on the indebtedness of cities. These restrictions are to be found in the constitutions of nearly all our states and have been upheld both in letter and in spirit by the decisions of our courts. They have undoubtedly served to prevent the financial ruin of many small cities, which in the hands of unscrupulous political adventurers would otherwise have undergone the same disastrous experiences as befell the city of Elizabeth in days gone by. Yet this constitutional limitation has itself its limitations. It should not be made a fetich

to be worshipped blindly at the expense of really necessary progress.

In the competition which exists to-day between nations and cities as well as between individuals, to stand still means to retrograde, and if it should happen that a choice must be made between stopping the modernization of New York and amending the constitution, I am in favor of the latter course, provided no real danger to the city's credit and solvency be threatened thereby.

Two Classes of Debts.

I believe the clause in the constitution limiting the indebtedness of the city—wholly admirable at the time it was written—is not altogether adapted to modern requirements in that it does not discriminate sufficiently between two classes of city debts of a wholly different character.*

A city issues bonds only for permanent improvements, the benefits of which inure to posterity. But there are two classes of these improvements, easily distinguishable from one another, and between which a sharp distinction should be drawn.

In one of these classes are improvements, which while adding to the attractiveness, beauty and healthfulness of a city, to its economical administration, or to the better conduct of its governmental function, bring in no direct financial returns. This is by far the more numerous class and includes such ordinary works as the erection of public buildings, including schools, the acquisition of parks and the repaving of streets. No matter how great the material benefits may be that are derived from such improvements, the expense incurred is unquestionably a financial burden upon the taxpayers. In regard to such expenditures there can be no doubt as to the wisdom of establishing an arbitrary constitutional limit; since

*Article VIII, Section 10. * * * No county or city shall be allowed to become indebted for any purpose or in any manner to an amount which, including existing indebtedness, shall exceed ten per centum of the assessed valuation of the real estate of such county or city subject to taxation, as it appears by the assessment-rolls of said county or city on the last assessment for State or county taxes prior to the incurring of such indebtedness; and all indebtedness in excess of such limitation, except such as may now exist, shall be absolutely void, except as herein otherwise provided. * * * Nor shall this section be construed to prevent the issue of bonds to provide for the supply of water; but the terms of the bonds issued to provide the supply of water shall not exceed twenty years, and a sinking fund shall be created on the issuing of the said bonds for their redemption, by raising annually a sum which will produce an amount equal to the sum of the principal and interest of said bonds at their maturity.

otherwise the burdens that might be thrown upon succeeding generations by excessive issues of bonds would become intolerable.

There is another class of improvements, however, far less commonly met with, which either result in casting no burdens whatever upon the taxpayers, or else bring in an actual profit to the municipality. In such cases it may be permissible to ask wherein there lies any rational excuse for limiting the governmental activities of a city by constitutional restrictions. A dim recognition of this truth seems already to have found expression in the constitution, which specifically excepts from the operation of this limitation bonds issued to provide for the supply of water, and requires only that a special sinking fund be established for their ultimate redemption.

Productive Undertakings Exempt.

Why this exception? Because pure water is a prime necessity for the health of a community? Scarcely; for there are many other public necessities paid for by the issue of bonds which are hardly less imperatively needed by the people; and as to these the constitution is silent. The reason must be found in the fact that, for the past century, by that universal custom which has the force of unquestioned law, it has been the practice of cities owning water-works to charge customers for the water supplied, and that the rentals received from the operation of this natural monopoly have almost invariably shown a profit over the expense of maintenance and operation. In other words, bonds issued to provide for the supply of water are not a real burden upon the taxpayers, since the water rents received pay the interest on these bonds, amortize the principal, and still yield a profit to the city.

If, as I believe, this principle is absolutely sound, there is no reason why in these days of highly developed municipal functions it should be limited to the matter of water supply simply because generations ago, that constituted the only form of municipal ownership known to our forefathers. I will try not to wander too far into the seductive field of municipal ownership; but there are two illustrations of the principle I have just alluded to which are practical questions of the day. I refer to the construction of the rapid transit railroad and the proper development of our dock system.

As you are doubtless aware, the contract for the construction of the rapid transit road provides for its completion by the contract-

ing company for a specified sum to be named in the bid. This sum is to be paid by the city to the contractor, from time to time as the work progresses, by the issue of bonds. The same contracting company is bound by the terms of the contract and under heavy bonds to operate the road for a term of fifty years, paying to the city as rental the annual interest on the bonds issued and one per cent. additional for the purpose of establishing a sinking fund for the liquidation of the bonds at the expiration of the lease. Thereafter the road becomes the unincumbered property of the city.

A more advantageous contract can scarcely be imagined. Here is a case where the bonds issued by the city are in no real, practical sense a debt at all. There is absolutely no burden thrown upon the taxpayers; on the contrary, the city will ultimately acquire without cost an asset of inestimable value. Why should the constitution hinder the city from entering into enterprises of this character?

Profits of Docks.

The question of the development of our dock system is, in the opinion of many, even more important than the construction of the rapid transit railroad. No one who is impartial and has really studied the matter can seriously deny that the municipalization of the New York city docks, tardily and insufficiently as it has been carried on, has been advantageous to the city. No city in the world is circumstanced similarly to New York in respect to its water front privileges. But the acquisition of dock property by the city has proceeded at a snail's pace. In the fierce commercial competition which exists to-day between the great ports on the Atlantic coast of this country, New York has been badly handicapped by lack of wharfage room and transportation facilities incidental thereto. So grave has the situation become that a state commission has been created to examine into the causes of and remedies for the decline in the commerce of this port. A danger of this kind defies exaggeration. All else we might lose, but the loss of our commercial primacy spells disaster. If this threatened disaster is to be averted, the acquisition, improvement, and control of dock property by the city should be made a matter of public agitation, and entered into at once in a vigorous, comprehensive manner. Excellent plans have been devised for improving the water front of the city, for constructing docks equal to those of Liverpool, and for providing

proper means for transportation and transshipment along the lines of the city's marginal streets. But, thus far, the cost has proved prohibitive—prohibitive, however, only for one reason; the obstruction of the constitution. If it can be shown—and it can be—that the money expended for these dock improvements would not prove a real debt, burdensome to the taxpayers, but rather an advance or loan made by the city and certain to be repaid principal and interest within the lifetime of this generation, with an enormous profit besides, who would be such a slave to conservatism as to dispute the wisdom of amending the constitution so as to make this great improvement possible?

The people do not properly realize the profits which the city derives from its docks.

The bonds issued by the city in recent years to pay for the acquisition and improvement of dock property have borne an average interest charge of about 3 1-4 per cent. per annum. Up to 1895 the Dock Department had spent the sum of $6,508,291.50 in acquiring and improving private property, from which the rentals received amounted to $462,226.54, or seven and one-tenth per cent. per annum on the total outlay. This would represent a profit over the interest charge on such bonds of more than a quarter of a million dollars per annum, or sufficient to redeem the principal of the bonds in less than twenty years, notwithstanding the fact that the outlay referred to includes the large expense of widening and paving West street.

Since 1895 the Dock Department has conducted important condemnation proceedings in the vicinity of Bank and Bethune streets on the North River, to provide piers of extraordinary length for the use of the large transatlantic steamship lines. Owing to the peculiar topography and development of this locality, the cost of these proceedings was greater than any heretofore attempted, or likely to be undertaken in the future.

The blocks of ground condemned were covered by large factories with expensive fixtures and machinery, which had to be paid for by the city and then torn down and removed. Afterward the ground upon which these buildings stood had to be dredged out to a sufficient depth for the slips, which was a heavy expense not ordinarily incurred. This was followed by the construction of a masonry

bulkhead-wall and the erection of piers. The total outlay connected with this improvement was $7,536,841.60, upon which the annual interest charge is $244,947.35. The rentals received amount to $370,206.52, which shows an annual profit of $125,259.17.

Ordinarily the city does not have to acquire the upland property abutting on the water front, so that this improvement makes the least favorable financial showing for the Dock Department that could be exhibited. Nevertheless, the annual profit is sufficient to redeem the bonds issued in thirty-five years, at the end of which time the city will be probably $10,000,000 richer by the operation.

To adhere slavishly to the fetich of a constitutional provision in the light of such a showing as this is to shut the door of fate in the face of our city's future. If New York city is to occupy the position of commercial supremacy to which its past history and its natural advantages entitle it, we must reason about these matters like intelligent adults, and not like children still enmeshed in the prejudices of early teaching.

The constitution should be amended so as to except from the limitation on the indebtedness of cities bonds issued to provide for improvements, which, while governmental in their character, are, nevertheless, essentially business enterprises, and from the operation of which profits can be derived sufficient to provide a speedy amortization of the indebtedness temporarily incurred.

To some it may seem that one holding the public office I do, which has always been associated in the public mind with ideas of conservatism in dealing with the finances of the city, should not advocate a proposition looking toward a large increase in the municipal debt. But if I have failed to show that the increase I favor is not in any practical sense a real debt, that the issue of bonds for the purposes I have described imposes no added burdens upon taxpayers; and that for this reason the principle of constitutional limitation has no application, if I have failed to show these things, I am still convinced that the cause of the failure lies in my inadequate presentation rather than in a lack of merit in the plan itself.

THE MODEL CITY.

A SUGGESTION FOR THE ST. LOUIS EXPOSITION.

By William S. Crandall.

[Note—The Model City was first outlined some three years ago by Mr. Crandall at a meeting of the National Municipal League. Since then several other plans of a similar character have been worked out quite independently, and recently all have been united by the Municipal Art Society of New York, and a committee representing the different organizations appointed to urge upon the managers of the St. Louis Exposition the adoption of the idea.—Editor.]

The American tourist, when rambling through the old cities of Europe whose history antedates, perhaps, the discovery of the Western Hemisphere, constantly remarks upon the seeming lack of plan or purpose. The cities apparently grew haphazard, and streets were laid out without reference to artistic effect and without proper regard for transportation facilities. Indeed, whatever of plan there is to be found in European cities, has its origin, in most instances, in the last century, and very frequently within the last quarter of it. Paris—the Mecca of students of civic æsthetics—is the product of Baron Haussmann and his immediate successors, many of whom are still active. The broad avenues, the commodious public buildings, the spacious parks of Berlin, London, Vienna, Glasgow and hundreds of other cities are the work of yesterday. A description of sanitary conditions in almost every city of fifty years ago is so strange and appalling as to cause its accuracy to be challenged. A well-constructed sewage system, which we have come to assume as properly belonging to every progressive city, is wholly the outgrowth of the last generation of sanitary engineers. It is only a short time ago that street cleaning departments began their existence, and such scavenging as was done was performed by the dog, the hog or the buzzard.

There is now, however, a well-developed science for all the various lines of municipal activity; and however far short of perfection actual administration may fall, not even the most pessimistic

person will contend that rapid progress has not been made. The narrative of such progress ought to be an inspiration to every public official and to every urban dweller.

The principal defect at the present moment is the lack of facilities for placing the experience of widely-separated cities at the disposal of each and every urban center. Every city has its own peculiar local conditions, out of which spring peculiar problems that sometimes require treatment considerably different from that adopted by other cities. Nevertheless, what has been tried and has succeeded or has failed, is of great value to every other city, for thereby much experimentation, much time and much expense may be saved.

Then, too, there is competition between cities, as well as between individuals. Persons of wealth, and, to some extent, the central offices of business houses, locate where municipal improvements have been carried farthest. The city that has poorly-paved streets, hideous public buildings, inadequate sewage systems, and poor water supplies cannot long compete with its more progressive and better-governed neighbor. Good Americans are said to go to Paris when they die, not because Paris is considered the commercial center of the world, but because it is considered the most beautiful city. Art, therefore, is a very important factor, and every city which wishes to retain its position and grow in wealth and population, must know what other cities are doing, and learn from their experience.

It was the appreciation of these facts—the inspiration that would come from a comparison of past and present conditions, and the benefits of a more general familiarity with the best each city affords—that led the Municipal Art Society of New York to suggest to the authorities of the Louisiana Purchase Exposition the construction of a model city and a municipal art exhibit at St. Louis in 1903.

The memorial presented suggested:

First—That those departments of the general Exposition which are similar in their functions to the same departments in modern cities be incorporated as working models in the general plan of the special Exposition. These may include the engineering, park and tree planting, fire, police, health, street cleaning, garbage

disposal, water supply, and other departments. These may be so grouped as to illustrate the administration of a modern city on the best lines and thus form an object lesson for American and foreign cities without the least interference with their normal functions as necessities of the Exposition itself.

Second—There are certain other features, which, while not in themselves necessities to the welfare of the Exposition, would be valuable educational attractions. Public schools, public library, museum and similar buildings devoted to educational matters would naturally be included.

Third—Any plans for a model city would involve treatment of parks and plaza spaces, street crossing and other vistas, grouping and architecture of other structures and other lines in which the æsthetic factor is important. To make these practical, however, they must be adjusted to more utilitarian features (as in the case of actual practice); hence are thus suggested rather than definitely specified.

Fourth—In order that there might be a place for the assemblage and classification of the smaller concrete objects, such as street signs, lamp posts, letter boxes, paper receptacles, park settees, street electroliers, street cleaning machinery, and a thousand and one other articles employed in the construction and maintenance of a city, a building to be called the Municipal Art Building might be erected.

The proposed scheme is so broad in its scope and so comprehensive in its opportunity as to render difficult a concise statement. Its general purpose is to show (1) the progress already made in every phase of municipal development, (2) the most successful methods of solving each and every municipal problem, beginning with the laying out of a city (streets, avenues, parks, etc.) and ending with the public baths, laundries, theatres and telephones, having run the entire gamut of municipal problems and city conditions, and (3) how art may be combined with utility so as to make the city not only the most effective industrial, commercial and social unit, but also the most attractive and the most beautiful.

To this end plans, photographs and sketches should be secured from the most progressive cities of the world, and, wherever possible, the machinery actually used should be displayed. For instance, Chicago should send a working model of the sanitary canal by which it disposes of its sewage. Paris should exhibit its system of sewers. Glasgow might be called upon to portray its well-developed system of garbage disposal and utilization. New York would explain the rapid transit subway it is now building—the most extensive system in the world.

Private companies would gladly display the various kinds of machinery and manufactured products used by cities or private corporations doing municipal work, such as fire apparatus, garbage incinerators, paving materials, water meters, filters, hydrants, etc.,

sewer appliances, lighting systems, voting machines, etc., etc. Wherever possible this display would be supplemented by practical illustration. Fire companies from various cities could give drills showing latest and most approved methods of fighting fires and saving life. The streets of the Exposition would be cleaned in the best possible way, and garbage disposal works erected upon the grounds.

In other instances, where it is impossible, owing to lack of space or of facilities for doing the work, stereopticon views and moving pictures could be used very effectively, and the visitor to the Exposition thus enabled to see what the cities of the world were doing for their citizens, without visiting them personally.

Particular attention should be paid to public art, and the cities of the world sacked to secure the most artistic lamp posts, street signs, guideboards, public buildings, bridges, monuments, parks, boulevards, railway stations, etc., etc. Heretofore, principal attention has been paid to utility, but the fact is now becoming widely recognized that art and utility can easily be combined, and that the public appreciates, yea, even demands, the most artistic, rather than the hideous or even the commonplace.

Such an exhibit of models, photographs, sketches and drawings from the world's cities would be one of the most attractive features of the Exposition, in connection with which there could be held an International Convention upon Public Art. Two have already been held in Paris and Brussels; the third is soon to be held at Turin.

The advantages of such an exhibit are so evident as to call for little discussion. The Model City would be an inspiration to every city dweller and public official. It would show in a way which no one could escape, the possibility as well as the advisability of solving every problem in the most effective manner.

The increasing concentration of population warns us that every social and political problem is to be settled, if settled at all, in the cities, and with city conditions plainly in mind. From one-third to two-thirds of the inhabitants of every progressive country reside in cities over ten thousand population, and the censuses just being taken indicate that we have hardly crossed the threshold.

Yet, up to the present time, there has been no specific effort

made to interest the city visitor. No exposition, little or big, ignores the agricultural population. It is safe to say that a large majority of the visitors of any exposition comes from the incorporated municipalities. Assuming this to be a correct statement, is it not about time that the city, town and village be recognized in some manner befitting their importance? An effort is made to teach the farmer; why not make an equal effort for the benefit of the citizen who has to provide his own government?

The idea is not new. It was presented to the managers of the Pan-American Exposition in the spring of 1899, by a member of the Municipal Art Society. It was widely commented upon by the press at the time, and with universal favor. It received the hearty approval of such men as President Roosevelt, then Governor, who, in his last annual message, recommened an appropriation of State funds for its installation, and of ex-Mayors Low and Strong, Richard Watson Gilder, Albert Shaw, and many others, including city officials of the leading cities. All the Buffalo papers commended the scheme, and one of them said editorially, May 19, 1899:

> The Pan-American Exposition could have no educational feature of greater practical value than an exhibit setting forth the progress of municipal government and showing how the best methods may be attained, for in this way the millions who go to the Exposition would be rendered more intelligent on this important subject and could be taught by object lessons what it would take them a long time to learn through reading of newspapers, magazines and books. The Exposition must, of course, depend largely upon exhibits and attractions such as draw the crowds in order to be a financial success, but it must also be borne in mind that to prove of permanent educational value and to rank high among the great expositions of the last quarter of a century it must provide features which will appeal to the intelligence of the people who will enter its gates.

Buffalo failed to adopt the plan, for the simple reason that its space and funds were too limited. If the St. Louis Exposition fails to seize upon the opportunity, it will not be for this reason, for it already has thirty millions in sight and ample area.

Chicago gave to the world "The White City" in 1893, Buffalo its "Ranibow City" in 1901, and now let St. Louis contribute "The Model City."

PARKS AND TREE PLANTING IN AMERICAN CITIES.

By Frederick W. Kelsey.

The remarkable growth of cities in this country makes the problem of suitable parks and appropriate planting of the streets of pressing importance. The imperative need of parks and open spaces in all densely built centers of population is generally recognized, but the embellishment of streets in urban and suburban communities by a uniform and comprehensive system of tree planting is just beginning to attract the attention the subject deserves. The ideal condition, alike from practical and aesthetic points of view. will be reached when street planting supplements park and parkway development so as to complete a systematic treatment of the municipal area as a whole.

That both local and general conditions are tending in this direction becomes evident from a casual understanding of what is going on in many cities in different parts of the country. Where barren waste or unsightly buildings were formerly objectionable objects, there are now attractive parks for the enjoyment of all classes and conditions of people, and the more this feature of municipal growth is developed the more general and widespread is public appreciation. The location and initial improvement of Central and Prospect parks were at the time looked upon by many public spirited citizens in New York and Brooklyn as an experiment. Similar doubts and misgivings were indulged in regarding the more recent acquirements of the larger park areas above the Harlem River. Now all Greater New York is interested and in earnest in developing the newer park lands representing an investment in New York and Brooklyn boroughs of many millions of dollars, and in continuing the policy of securing more parks, squares and playgrounds with a liberal appropriation for this purpose every year.

With the completion of the system of parkways, by which the larger parks will be connected under continuous park treatment

and control from Central and Riverside parks, through the Bronx, Pelham Bay Park and return, Greater New York will possess one of the most complete and valuable park systems of the world. The improvement of the new park lands in Brooklyn Borough, together with Prospect Park—now one of the finest public parks in this country or in Europe—and the acquirement of a marine park at Coney Island—the one essential feature yet unprovided—will make the New York parks the pride of every resident of the city. Nor should the development of the park plans for Richmond Borough be overlooked. This improvement, with the small parks and playgrounds now under advisement or in process of development in various parts of the city, will round out the park features in the greater city to the enjoyment and enlarged benefit of the present and succeeding generations.

Lack of Foresight Costly.

Even the smaller cities and towns all over the country are making rapid progress in all that pertains to successful park development. True, in some communities procrastination in acquiring park lands has been costly. Newark, New Jersey, and the lands recently acquired for the Essex County park system in that vicinity, furnish a striking object lesson in this respect. The more than two hundred acres in the Branch Brook Park acquired within the past six or seven years at a cost of more than one million of dollars, could have been purchased not so many years before for about one-fifth of that sum. The same is true of the native woodlands for the mountain parks of that system. A few years ago those lands were deemed by some of the owners hardly worth the taxes, yet the same lands now represent a cost for parks of from one hundred to three hundred dollars per acre.

The rapid growth of nearly all urban communities makes the experience of one community in respect to expense for delay applicable to all. Both New York and London are paying a fabulous price for the lack of forethought in not reserving during the earlier development of the cities suitable breathing spaces and playgrounds about the public schools and in various portions of the densely built sections now being acquired for this purpose. The map of London is thickly dotted by the marks indicating these places, and the public debt of the city tells the story of costly experience. New York

and other American cities are making a similar record, and from present appearances will thus continue for a time in the future.

Value of Parkways and Boulevards.

The requisite parkways for connecting the larger parks into a continuous park system, are not always correspondingly expensive, even where not reserved under some original plan, as a greater portion of the cost in acquiring the necessary land or right of way is not infrequently assessed on the abutting property. But it is only within the past few years that connecting parkways have been deemed necessary. Most of the larger parks in this country were laid out and acquired separately, without regard to extending park treatment by connecting parkways. In other words, the park systems of to-day as being carried out in New York, Chicago and elsewhere under the plan of uniting the parks into a harmonious whole, are strictly modern and very recent undertakings. That this will everywhere meet with emphatic approval and general appreciation by the public can not be questioned. Isolated parks have few attractions outside of their own boundaries and available convenience to the population served. A system of parkways broadens the improvement to the convenience and advantage of the whole community, enormously extending the beauties of nature along the parkways, and makes the connective feature always a source of variety and enhanced interest.

In many cities existing avenues or streets are being utilized, for in densely populated portions new parkways, convenient to the mass of population and directly in line of the larger parks, are impracticable owing to the great cost of acquirement. In Chicago, the boulevards connecting Lincoln Park on the north, with the West Side parks, and these with the South Side parks, have been formed the entire distance by the use of streets originally opened for ordinary traffic and later put under control of the park department for parkways. Seventy-second street, New York, was by special legislation some years ago, made the connecting links between Central and Riverside parks.

Where existing streets are thus utilized, the cost of improvement as compared with the cost of an entirely new parkway is nominal. With suitable plantings, provision for bicycle and vehicle traffic, park road construction, sprinkling and the control vested in

the park department, an ordinary street of the usual width may become a most accessible, attractive and valuable part of a park system.

One of the difficulties in the way of utilization of existing streets for parkways is found in cases where such streets are desired by the street railway companies for traction purposes. The question then becomes one of public requirements on the one side against corporate greed and aggressiveness on the other. Such a contest is now being waged over one of the great county avenues leading from Newark to the Orange mountains. Two of these avenues were included in the plans of the Essex County Park commission as necessary parkways connecting the principal Newark park with the larger mountain reservations. The control of the avenues is vested in a county board, with minor or collateral rights held also by the municipal authorities in the cities through which the avenues extend. The traction interests of the county, now consolidated into one huge corporation with millions of watered capital, had previously secured favorable franchises for all of the other county avenues leading out from Newark. The usual methods of private corporations in controlling public boards in their own interest are being pushed with great vigor. This is going on in an intelligent community where the parkway plans have been made public; where it is known that another route for the trolley extension would better serve public interests irrespective of the irreparable loss of the parkways. The lessons from the recent elections in New Jersey and New York would seem sufficiently decisive to cause public officials to be somewhat cautious in committing their constituency to an irremedial public injury in following the recent Philadelphia example at the behest of private corporations. The outcome of this situation will be watched with interest by those interested in parkway development.

Small Parks.

In the attainment of large parks and connecting parkways, the small parks should not be overlooked. Nothing yields larger returns than the open oases in the crowded tenement-house districts of our metropolitan cities. Thither thousands flee in the hot, sultry days of summer to breathe the fresh air. There the children congregate to enjoy their sports, leaving the crowded streets for traffic.

And if any one doubts the wisdom of small parks, let him visit any one of the small parks opened in New York within the last decade. Nothing is dearer to the hearts of the people, and the failure of the last administration to follow the constructive policy of Mayor Strong in this direction was a factor in the recent election.

A good instance of what private citizens may do when the city is slow to act or negligent comes from Chicago. At one of the intersections of three streets upon the North Side, there is a triangular plot—too small for building purposes and too large to be paved and made a part of the street. For many years it was used as a dumping place, unsightly and unsanitary in every way. One of the adjoining property owners—Mrs. H. H. Kellogg—seeing how greatly the locality might be improved besought the park authorities to act. Little was done, however, and in sheer desperation, she appealed to her friends, and finally succeeded in planting the area with trees, shrubs and flowers, making it one of the prettiest little parks in that portion of the city.

Park Systems of the World.

The best solution of the park problem, in its general aspects, must be determined by local conditions. Nearly every city has its peculiar features. Many of the European cities within the last half century have torn down the old city walls, filled the moats and in their place constructed spacious, tree-lined boulevards. Every visitor to Brussels, for instance, is instantly impressed with the beauty and appropriateness of the Boulevards du Midi, de Waterloo, du Regent, d'Anvers, du Jardin Botanique and the others that surround the old city of Brussels, where once stood the ancient city wall.

Paris, with its numerous tree-lined boulevards and extensive suburban parks, represents another solution. The French people are unusually fond of sports and recreation. To afford ample facilities, it was necessary either to condemn large areas within the city limits, the expense of which would have been enormous, or to go outside the boundaries of the city and purchase large tracts. The latter was considered preferable, and now over 20,000 acres may be reached by an afternoon's excursion from the city. Conditions in Vienna are much the same, except that the plan has been

adopted of grouping public buildings, and of surrounding them with small parks, which add greatly to their beauty.

Amsterdam and some of the other cities of Holland, where canals to a considerable extent are used in the place of city streets, have planted trees along the margins, which offer refreshing shade, and their green foliage relieves the monotony of the buildings.

Edinburgh, taking advantage of the peculiar topographical conditions, turned the hollow between the old and new towns under which run many railroad tracks, into a park. Along one side runs Princes street, the principal business street of the city. And thus Edinburgh has a business district unlike every other city.

London is principally characterized by the large number of small parks, many of which until recently have been owned by the adjoining property holders, but which are now being municipalized as rapidly as the County Council can arrange.

Boston is everywhere known for its metropolitan park system, which joins together the many suburbs of Boston and the parks on Massachusetts Bay.

The superposition of radial avenues upon a rectangular street-plan necessarily produces at intersections unoccupied areas of considerable size. The original plan for Washington, D. C., which has been closely followed, provided for the planting of small circular areas at the larger intersections with flowers, shrubs and small trees. In many instances statuary has also been utilized, and without doubt Washington is the most beautiful city, from the viewpoint of parks and boulevards, in the United States.

In Chicago one finds a broad scheme of connecting parkways carried to successful completion. Even starting at the heart of the city one can select a parkway running either north, west or south, which will soon take him to a small park, then to a larger one, until miles and miles have been covered without leaving the parks or boulevards and without having covered the same ground twice. Much is also made of the lake, the only criticism being that so little of the lake front near the heart of the city has been utilized for park purposes. Private corporations seem to have crowded the city out of its rights. Of course, most of the water front must usually be used for commercial purposes, but few cities have utilized the advantages nature has given them. Every city of any size is

located either upon tidewater, lake or river, which afford cooling breezes during the heated portions of the summer. San Francisco has a bay park. Philadelphia's Fairmount Park is admirably situated along the Schuylkill river. The Federal government at Washington has reclaimed a considerable tract along the Potomac, and New York has added to its beautiful Riverside Park a few smaller parks along the East River. But New Orleans, St. Louis, Cincinnati, St. Paul, Buffalo and many other cities have not utilized the natural advantages which their locations give them. And New York needs ocean, river and sound parks, with connecting parkways to bind them all into a uniform system.

Trees in Streets.

Appropriate and effective street tree planting may be undertaken quite outside of park or parkway treatment. As tersely stated by one excellent authority, "the great want in modern cities is trees." The treeless condition of the residential portions of many of our American cities, the bare aspect of the streets is evidence of the truth of this observation.

The systematic use and care of trees on the public streets is more and more engaging attention. Climatic conditions cannot be changed, but suitable street trees remove many of the discomforts in summer and are nowise objectionable in winter. The heated term of the past summer afforded an excellent object lesson in this respect. The restful green and refreshing shade of the streets having trees as compared with those open to the glare of the unprotected sun rays were in marked contrast. The transformation produced by well-planted streets is always attractive. The favorable results in improved appearance, general attractiveness and comfort during the summer season are out of all proportion to the comparatively small cost. This is to be seen especially in Washington and Minneapolis, where a comprehensive system of street planting has, under municipal control, been carried into practical effect. Paris, Brussels and some of the other foreign cities also furnish striking examples. In Washington the magnificent lines of street and avenue trees have been planted and cared for by a commission, created as a branch of the district government, having full authority over all street planting matters in the city. In

Minneapolis and some other cities this power is vested in the park commission, with authority to plan, protect, prune and otherwise care for the trees, and in some cases to levy assessments against abutting property for other street improvements.

Under the Act of March 28, 1893, New Jersey has the requisite legislation enabling any city, township, borough or village to inaugurate a street tree planting system as a part of the city's function. The city of Passaic was one of the first cities to adopt the law, and about 6,000 trees have already been planted there by the commission appointed under the Act. One of the most favorable features of the law is that under its operation any or all streets can be planted uniformly, with a consistent, continuous treatment, rather than the incongruous planting usually carried out—owing to the diversified tastes and ideas of different property owners—in the absence of a comprehensive plan of dealing with a street as a whole.

Municipal Action Necessary.

A definite plan for all municipal improvements is necessary. In tree planting, as in the matter of water supply, sewage and other problems requiring the use of the streets, the best results obtain under a commission having full authority. Indeed, concentrated authority is requisite. No one would favor a plan by which each property owner would attempt to put down a sidewalk or pavement in front of his premises to conform to his particular notions. The "hit or miss" plan of street planting is open to similar objection. Some trees on a street are, however, unquestionably better than none, but where the work is undertaken by a competent commission uniformity, economy and other practical results follow for the benefit of all. When public sentiment in the various states crystalizes into law, empowering municipal authorities to carry out a system of street planting, as parks and other local improvements are now made, we shall have still more attractive cities with parks and parkway advantages enlarged and enhanced in every direction.

In Washington these important improvements have been inaugurated in reverse order. The beautiful lines of street planting are now being supplemented by the connecting parkway system, under plan of the architects and the committee of the Senate having the matter in charge. With these plans for the park system

carried out, Washington, with its broad planted avenues and shaded streets, will be one of the most delightful residence cities, and an object lesson in park and street planting matters for other cities of the country.

NEW YORK CENTURY CLUB BALCONY.

PLANT DECORATION.

By Katharine C. Budd.

[Note.—The sketches used as illustrations in this article have been drawn by Miss Budd.—Editor.]

A walk through our city streets, between the uninteresting rows of brown-stone houses, reveals little variety and less good taste in the tiresome perspective of windows, commonplace "stoops," meaningless cornices stuck on at any convenient height and location. The new buildings replacing the old are generally well studied and artistic. By contrast, their neighbors look even worse. At first sight it seems hopeless to suggest any improvement short of tearing down the front. But if for a moment one glances at additions common in old continental cities, he will see how the love of the beautiful is manifested in picturesque changes in the plain old stone houses. The balcony, full of gay plants, the fountain at the corner of the street, the oriel window and graceful tower, in mass of color or variety of outline, improve the appearance of the town.

Any traveler fortunate enough to visit one of the quaint old Swiss or French towns, when *en fête*, will retain a lasting impression of the effect of floral decorations, both transient and permanent. In Bern and Thun, for example, the houses jut out beyond the street line, the sidewalk passing under the first story, a series of heavy arches supporting the buildings above. There is not an inch of greensward, not a tree in sight, but everywhere on the wide window sills and iron balconies rest boxes and pots, overflowing with flowers and climbing vines. A cold, lifeless sketch in black and white gives no idea of the beauty of the creamy greys of the stone, brightened by the vivid flecks of color.

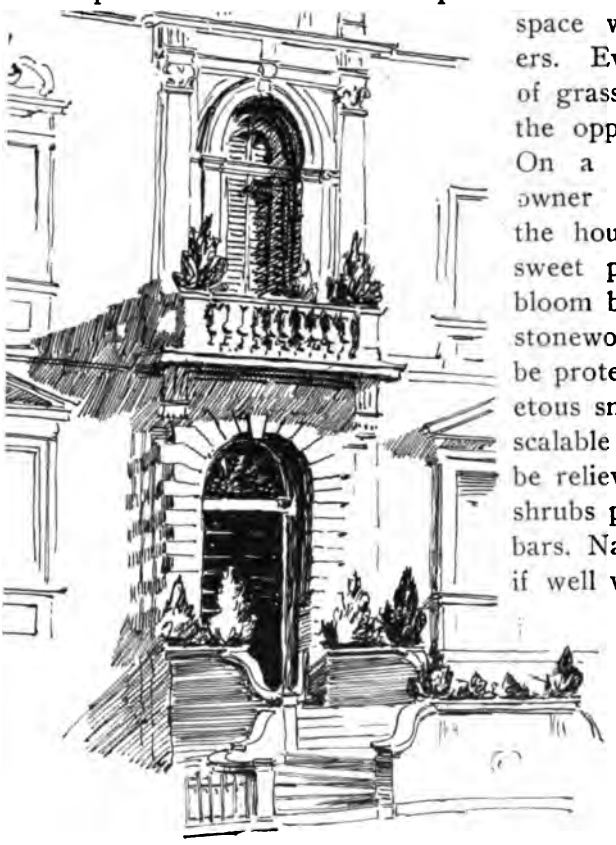
Our unkindly climate discourages a display of this kind. In summer most of the city houses are closed, the short seasons of spring and fall are over before one has time to plant and enjoy his window gardens. In one case an early frost blighted the plants

three days after they were set out. Yet here in New York a special effort should be made, as there is but little green to relieve the monotony of stone and iron. Our trees die; if not destroyed by the leakage of gas pipes, they are ruthlessly cut down by the first unscrupulous contractor or gang of street commissioners. In other cities the generous width of the streets permits the development of two or even four rows of trees, which are cherished by the municipal authorities, trained, enriched and renewed when necessary. The graceful mass of foliage which softens and conceals defects, while it enhances the beauties of architecture, is impossible in our overcrowded city. Even that bit of color, the tiny lawn in the front area has disappeared to make way for hard blue flags. One friend is left us in the vine which covers the commonplace churches and house fronts, draping the stupid, ill-designed ornament and clumsy porches, thriving in spite of heat, dust, neglect and abuse. We owe a debt of gratitude to the ampelopsis and the wisteria.

One of the most attractive features of European life, the custom of having meals served out-of-doors, is gradually becoming more popular here, adding much to the pleasure of the summer months, which some must pass in town. Our German citizens first, importing their home habits, divided from the highway by portable screens, refreshing and comfortably shaded gardens. Ivy, planted in long boxes of convenient size, is trained up over a light framework five or six feet high, which may easily be removed in winter to a sheltered place, leaving the sidewalk unobstructed. This pleasant fashion is ascending the social scale. The best restaurants and some of the clubs are now provided with glorified beer gardens. When these are on the roof, a score of stories above our heads, the brilliant illumination after nightfall is the only thing which adds to the decoration of the city. But, at the sidewalk level, we gain from every addition of this kind: the fresh green of the flourishing privet hedge; the urns, overflowing with flowers; the graceful balconies, gay with rows of plants, while they add to our comfort, constantly appeal to our love of the picturesque.

The high, heavy wrought-iron railing, extending across the front of the house, has little excuse for existence in our peaceful cities. Where it encloses a courtyard, or garden, the effect is fine, but frequently it simply guards a few bluestone flags and two base-

ment windows. The owner of such a railing has a duty to perform to the public. He should bank up the earth in his area, filling the space with brilliant flowers. Even a well-kept bit of grass is a relief behind the oppressive black bars. On a corner house the owner might plant, next the house, a row of tall sweet peas, which would bloom brightly against the stonework. These would be protected from the covetous small boy by the unscalable fence, which might be relieved at intervals by shrubs placed close to the bars. Nasturtiums flourish, if well watered, under circumstances which would discourage most flowers; a bed of pansies will grow in a shady spot; indeed, the list of hardy flowers is a long one, if one searches with a hearty desire to enrich his tiny garden.



ENTRANCE WITH EVERGREENS.

The problem of making the best of every inch of space has been carefully studied in the smaller parks on the continent. Of course, in the old country, labor is cheap; gardeners are continually at work, removing each wilting plant or faded leaf; their set designs are as perfect as a mosaic floor. Let us hope that the torturing of poor flowers into an imitation of painted scrollwork will never be overdone here. A little is quite in keeping with, and greatly adds to, architectural effects. Several of our modern palaces are surrounded by good examples of landscape gardening in miniature. The renaissance type looks best with formal beds and

stiffly trimmed trees, while gothic houses or churches should have undulating velvet lawns and irregular grouping of shrubs. Many suggestions of this kind may be found in the simple old English gardens, where fountains and sundials, quaintly clipped shrubbery and box-bordered paths form a welcome prelude to the brick and stone walls beyond.

BALCONY AND WINDOW DECORATIONS.

The ordinary "high stoop," when changed to a "box stoop" by altering the steps, may have terra cotta boxes along the top and on the posts. These should be concealed in the stonework, be wide enough to hold plenty of earth, with holes in the bottom for proper drainage. Many entrances may be improved by setting bay bushes, or evergreens, in pots on either side of the door.

In the familiar adaptation of the "high stoop" to the "American basement," the old door may be filled in with a small conservatory projecting over, yet forming a part of the new entrance at the basement level. The modern "American basement" frequently has a balcony over the entrance door, which the fortunate owner should fill with plants and creepers, trailing down over the balustrades to the cornice below.

In planning the new home, which should express in its well-proportioned exterior the individuality of its owner, let one of the first requirements be cleverly-contrived places for flowers, the delicate ones shielded by glass, the hardy on balcony and porch. In the house of an architect of original ideas, a wide, low window in the hall directly above the front door is kept constantly filled with rows of primroses or other gay flowers in season. One realizes how much these add to the attractiveness of the house by noticing the vacant appearance when, in changing the pots for fresh ones, the window is left empty for a short time.

Bits of wrought iron add greatly to the character of the house to which they are attached. The history of the various pieces found in a great city would form an interesting story. Here in one house is a large gate brought from Switzerland, of free and graceful scrollwork, well designed to fill the space occupied. Next door, we see a coquettish marquise of pronounced French type. Across the way, the rail and guards are of the quatrefoil, the repeating pattern of the Venetians. In a neighboring street is an elaborately-hammered swinging crane, which formerly graced the shops of a blacksmith in the Tyrol, which, espied by its present owner, was carried off in triumph to grace his city home. But all this is "another story"—it would not come within the scope of this article, save that flowers and vines seem intimately connected with the light, strong lines of the wrought-iron work. There is no better way of displaying flowers than on an iron balcony, and no more interesting details connected with a house than those of metal.

BALCONY IN VENETIAN IRON WORK.

In other countries, we see frequently, lovely little fountains or medallions in honor of saint or Madonna, with floral offerings before the image above. The utilitarian spirit of our age forbids a similar display of sentiment in public. Fancy one of our citizens perpetuating his love for two of his friends by erecting a tablet on the front of his house to commemorate their virtues! But such a tablet, sculptured four hundred years ago, is still to be seen in Venice. Since, therefore, many means of expressing our feelings are denied

INTERIOR WINDOW FLOWERS.

us as not "good form," let us make the most of those allowed; we can always show by choice and care of flowers an outward and visible sign of the love of beauty within.

A STREET CORNER IN THUN.

The florist in New York has a great field for display. No other shop boasts of wares as attractive. We may gaze at rich lengths of lustrous silks and splendid velvets of every shade in one window. In the next, we see the narcissus and lily, ferns, masses of azaleas, or perhaps wonderful orchids, white, green, gorgeous yellow and orange, rose and violet. The design brocades is often suggested by flowers; we are accustomed to the original and do not appreciate it as we do the copy. No matter how busy we are, the temptation to linger for a restful examination of a well-arranged window is not to be resisted. Among the florists we daily pass, a few of the more modest appeal strongly to our higher nature. We enjoy the great spreading ferns, each placed so as to have all the elbow room it needs; the primrose yellow of a hanging mass of orchids, the large palms and small trees, each of which displays its own characteristics, while forming a background for roses or lilies, growing in earthenware pots, or cut, with long stems, which show through tall green glass vases.

Flowers in the city may be rented from the florist, who will undertake to supply all deficiencies, renewing the pots as the old flowers fade. In turning the care of our boxes over to others, one loses much pleasure, but unless one has "the gardener's hand" his labor is apt to be in vain; bad luck is sure to follow him. In England window plants are astonishingly successful. Even in the ordinary lodging-house, too often frowsy and uncared for, the window boxes bloom freely. Guests lose sight of many negligences while admiring the brilliant geraniums. The over-worked maid servant is expected by the landlady to attend to them daily, removing every dead leaf and flower. Boxes there are filled with pots covered thickly with damp moss. As the plants cease blooming, they are readily replaced by fresh ones. All plants exposed to the dust need a frequent, thorough washing, as well as the daily sprinkling. This is especially the case with evergreens.

BORDEAUX CITY GATE.

A succession of flowers in the window box may easily be planned. For instance, the narrow, old-fashioned brownstone house, in the middle of the block, may have growing from the area, a wisteria, carefully trained to run up along the main lines of the house. In the circular-headed basement window long sprays of an English ivy will cover the upright bars of the usual iron guard; above in the single wide window next the entrance, a box of gen-

erous width, of the same color as the sill on which it rests, with trailing vines drooping over the front till they mingle with the ivy below. In the early springtime will bloom in gay procession the crocus, narcissus and hyacinth, inserted in the box in their own little pots, to be easily changed when they cease blooming. As the spring advances, the box will glow with the soft rose of the ivy-geranium, the color contrasting richly with the dull brownish grey of the stones. This plant, with a little daily attention, blooms freely all summer, the fresh waxy leaves and graceful, loosely growing sprays lasting until, late in the autumn, they are touched with frost.

WISTERIA—CALUMET CLUB, N. Y.

Instead of placing the window box, as usual, on the window sill, it may be set at the top of the iron window guard, about eighteen inches above the sill. The plants will take the place of the white sash curtain in screening the room, while permitting the inmates to see over and under the box. Of course, some kind of a screen is necessary in order that we may live our own lives without taking our neighbor across the way too much into our confidence. Why not endeavor to arrange this with growing things? If long trailing vines at the sides, with wire baskets of ferns at the top and a bright mass of azaleas on the floor, could replace the ordinary lace curtains, we would be the gainers. Boxes of English ivy well repay the slight effort necessary to keep them in healthy condition. A graceful balcony, with two or three great pots of

flowers or formal evergreens, is a welcome addition to any house; the plants should be set at the sides, not directly in front of the window. When a balcony is filled with plants they should graduate from low in the middle to very high at the sides. It is becoming the custom to set on the moulding under the parlor windows evergreens and ivy in a box long enough to reach across the front of the house. The long lines of ivy trail over the heads of the basement windows below, the evergreens are arranged so that their tops form a curved line above.

IVY DECORATIONS.

A great sheet of plate glass in the living room window makes it possible to show a trace of summer through the window. The humblest plant is often very beautiful in the house. For instance, the sweet potato and carrot, which in our childish days were a source of great delight, from that first anxious moment when we decided just how much of the interior to scoop out, to that proud day when after weeks of faithful watering we watched the delicate vine or graceful frond hanging over and concealing the ugly bulb. Children should be encouraged to care for flowers. Some poor little city babes lose one of the greatest joys of their existence through being shut out from contact with mother earth. So let us, then, by all means, provide plants for the nursery windows. Little kindergartners learn much of nature through watching the sprouting of seeds. Think of the excitement in the nursery when it is evident that two leaves and not one push out from the tender green stalk appearing above the moist, brown earth. And then the mystery to be explained when the children notice the difference between the

seedlings which develop till the first link is connected with the chain reaching out into the two great botanical divisions including whole families of plants.

A first step in this direction should be followed up by a trip through the parks, weather permitting, or through a botanical garden, with some one who can unfold the scheme of the vegetable kingdom. Fortunately, people who are qualified by a knowledge of botany and geology, and of the secrets of Nature, which make country life one of greatest charm, are coming to the front, proffering their services to conduct parties to beautiful wooded spots in the vicinity of the cities, there to explain the wonderful construction of the trees, the way each is adapted for its situation, and the peculiar beauty of each shrub and plant. Each simple lesson in this line, each thoughtful article published in magazine or journal, with the grace and charm of nature, brought home to us as fully as the light and shade of the camera can reproduce, each has its mission in calling back our natural fondness for the charms of nature. Each instance of this kind shows us that the love is innate, that we can when we choose overcome the initial objection to the trouble and expense incurred in adding to our city homes the touches of beauty, which, constantly becoming more common, will later render our city one of the most attractive in the world.

The churches and settlements have not been unmindful of the influence of art upon the lives of the people, and in many instances have assisted the working people, with whom they deal largely, to use window boxes, plants and shrubs to make their yards, houses and windows more enjoyable and attractive. One of the most important instances in this direction has been the work performed under the supervision of the Hull House, Chicago. Situated upon South Halsted street, in the midst of a very poorly-housed class of people, it organized a committee and raised $200, most of it locally, to pay for materials and labor. A block nearby was selected, the interest of the people aroused and many induced to plant the small yards in front of their houses with flowers and vines and to use window boxes.

The Chicago *Tribune*, commenting upon this work editorially, says:

As the summer opened this block became conspicuous in its neighborhood for its protected strips of grass between curb and sidewalk, its seventy young elms and poplars, its 800 geraniums and petunias in yards and window boxes, its barberry, hydrangea and spirea plants, its Virginia creeper and other vines, and above all, by the solicitous care bestowed upon these by the residents. During the dry weather water has been carried in buckets and tin cans to keep things green, few trees or plants have died, and the block is to-day an assuring example of what can be done by united effort toward giving a common, dingy street an aspect of taste, coolness, and interest. Every block in the crowded parts of the city would lend itself to similar improvement, and Chicago might thus bid adieu to the unrelieved barrenness of many of those areas. The example of Ewing street should be multiplied a thousand times next season."

Another very successful plan used in Chicago was the decorative planting contest inaugurated by the *Tribune*. Prizes were offered for the best-kept gardens and window-boxes, and over 500 contestants submitted their names, very few withdrawing before the prizes were awarded. The results were admirable. In some instances whole blocks gradually changed their appearance. The majority, who of course did not receive any pecuniary return for the amount of money spent, have expressed the enjoyment they received and will continue the experiment year after year. The improvement to the city can hardly be overestimated.

PEDIMENT OF NEW YORK STOCK EXCHANGE.
(From model in the studio of J. Q. A. Ward, the sculptor.)

MUNICIPAL SCULPTURE.

By Charles Lopez.

The inhabitants of New York truly have been much favored by nature. What more beautiful surroundings could be desired? Who of us have failed to be thrilled with the resplendent beauty of our harbor and with our magnificent North and East rivers? Approaching the city from the south by its great waterway, it would be difficult to picture a more enticing vista. To the visitor from foreign lands this glorious harbor must certainly present a fitting and impressive entrance to the great metropolis of the western continent. We may safely rest assured that no other large city in the world can so justly boast of such lavish gifts from nature's hand, and every New Yorker, no matter what his status be, is thoroughly cognizant of this.

Go on any of our harbor pleasure boats on a holiday when they are well crowded; if it be a fine, clear day, nature seems to envelop

one with her warm caresses. Mingle among the masses, and it will be proved to what extent the people are capable of absorbing the beauties about them. How that masterpiece of engineering and art, the Brooklyn bridge, invokes their admiration. But the new bridge, a little farther up, is passed without comment. What calls forth their admiration in one, while the other is passed by with indifference? The same instinctive impulses that enable them to recognize a discord in a piece of music.

KING ALFRED.
(Unveiled at Winchester, Sept. 20.)

If we follow the island of Manhattan along its west side, we are accompanied all the way by the Hudson river —a flow of water so noble and girded by scenery so varied and fascinating that when seen at certain times of the day, as in the early morning or at evening, when the sun is setting and bidding us farewell before its sojourn beyond the stately and solemn palisades, we are transported in an ecstasy that can be much more easily felt than expressed. To the north of the island, the picturesque Harlem winds its way, and along the east side runs the swift, busy stream—the East river; and far beyond, to the northeast of the island, we have the Sound—that handsome open stretch of water. Can any better place be offered for the site of a great city?

Thus we see how especially favored we have been! What a masterpiece Nature created for the founding of a city that should, and must, take its place as the most precious and most brilliant jewel in the crown of Mother Earth.

Now the question before us is: What have we done, what do we intend doing towards developing the natural forces to which we

have fallen heir? We have partly nurtured the gift intrusted to our care, built, as it were, a strong, healthy youth, but abandoned and left him to shift for himself, before fully equipped to enter the race. His tutors have not always given him their best, and if they have, it has not been always of the right sort. All of us know that there was never a great city without its having been beautiful; whether it was a city of ancient Egypt, of Greece, of Italy. A city must be beautiful; its monumental character must clearly and distinctly speak of its people to rank among the first cities of the earth.

SOLDIERS' AND SAILORS' MEMORIAL MONUMENT, RIVERSIDE DRIVE, NEW YORK.
(From model, C. W. and A. A. Stoughton, architects.)

And sculpture is the alphabet of expression, and through it a nation's noblest sentiments are proclaimed. It is to be used like so many letters, its grandeur and ennobling influences depending entirely on their grouping.

We have a splendid system of avenues (that is to say, as far as the length and width are concerned), and, as a rule, well paved. A Speedway, the like of which it would be difficult to duplicate. A perfect system of sewerage. A city most brilliantly lighted—better, I think, than any city in the world. Transportation, almost perfect

in its minutest detail. In short, everything that goes to make New York the great commercial city of the globe. But why not make it beautiful, so that we can rank in art, as we do in commerce?

It will be said that there is an Art Commission for the city of New York. This is true, but its powers are extremely limited, and naturally fail to accomplish what all would greatly desire. Its power is simply to pass upon the artistic merit of sculpture or of painting, and upon its proper placing, as far as possible. But this last and very important part is rarely successfully fulfilled, since our miscellaneous architecture is generally so unfortunately situated as to afford little or no setting for work of a monumental character.

GRANT'S TOMB, MORNINGSIDE HEIGHTS.

It is for the regulation and planning of avenues, of open places, of heights of buildings, of bridges, of street fixtures and of monumental structures, that an art commission could accomplish much inestimable good. The appointment of a body of men to pass on artistic matters, relating to the beautifying of a city, is nothing new. Very nearly all the large cities of Europe, at least those which are known for their monumental richness, have had and still have a municipal art commission with great powers.

Since it enters more particularly into the scope of this article to judge from a sculptor's standpoint, I will naturally dwell most strongly upon its monumental aspect. We do not question that there are many statues all about us, but the vast majority are so

LIBRARY OF THE UNIVERSITY OF CALIFORNIA

out of place with their surroundings, that in the great count they speak but little towards making the city beautiful. Sculpture in its grandest sense must always form an integral part of the architecture of a country. It is not that a building without sculpture cannot be good architecture, for we know that there have been some creations of the architect in that line, that are models to be followed, where sculpture played so small a part that it could have as well been eliminated. But sculpture must respond clearly to the surrounding architectural conditions. Certainly this will come about as the sculptor is given the opportunity to identify himself with buildings of a monumental character.

RICHARD M. HUNT MEMORIAL,
Opposite Lenox Library.

At the Battery is a place that happily has not suffered from the effect of the neighboring tall buildings; for the high walls about its half-circle give rather an agreeable and imposing setting to this historic landmark, and no doubt when the Naval Gateway is built, a most gratifying monumental result will be obtained.

The most successful result in sculpture as applied to exterior decoration in this city was seen in the Dewey Arch, with its colonnade. The result then obtained was certainly most gratifying. We all had a splendid opportunity to judge for ourselves what an important part sculpture plays in a decorative scheme, when ju-

diciously handled. Since the destruction of the work in question, I cannot recall in New York any place that, in monumental effects, compares with those of European cities in general.

The accompanying illustrations tell partly the grand system of their decorations, but the photographs, most necessarily, giving only one point of view, fail to convey a thorough understanding of the grand unity of the scheme adopted.

STATUE OF WASHINGTON, SUB-TREASURY, N. Y.

A sculptor, whether called upon to develop, in conjunction with the architect, a sculptural scheme of great importance, or simply to make the most ordinary forms of sculpture, as supports for street lights, signs or mere toys, must always give the best that is in him. For, even in these minor things, there must always be retained, as in works of greater importance, a true feeling and clear perception of style. It is only by putting some art into the things ordinary in objects of every day use, as did the people of the Middle Ages, that

we can ever hope to attain like them a greatness in art.

MONUMENT TO ADMIRAL FARRAGUT, Madison Square.

It is not to be expected to arouse an enthusiasm for sculpture at the mere command of it; it is of slow development. We can learn a great deal of the Greeks and the Renaissance, but neither the former with their gods nor the latter with its complex thought is wholly suited to our character. To most of us they are too foreign, but the grand heritage they have left us smooths our course and opens the way for the development of a school of art which should rank among the greatest the world has ever known. This end can be greatly aided through the co-operation of the state and the studio, to be attained by a body of men from the artistic professions, empow-

COLEONE MONUMENT—VENICE.

ered by legislative acts to pass upon matters pertaining to municipal art. This has been done in all the great cities of Europe, prizes being awarded not only to the architect and sculptor for the best four or five works erected during each year, but, if it be a private building, the owner is encouraged by receiving a medal of bronze and by reducing his taxes.

It is difficult, almost impossible, to speak of sculpture in a monumental sense, without referring to its relation to architecture, and it is in this capacity that it fulfils its greatest and most important mission. What rare opportunities were available in such places as the Concourse, Madison or Union squares and a score of other places on Manhattan Island, and still available in some of the

PROPOSED EMBELLISHMENT OF DETROIT HARBOR.
(From drawing, McKim, Mead and White, architects.)

other boroughs. How greatly important it is to decorate our large, open places with buildings and sculptures of an attractive character. There has always been a necessity for open places in a large city, to facilitate the maneuvers of great crowds, and to give such places a dignified character is no easy problem, especially when surrounded by buildings. Happily the solution was found for us in the early eighteenth century. The buildings about these open places, though each of distinct independence, are successfully united by imposing architectural and sculptural features which would suggest a harmony and unity of plan. If a statue was placed in a park, on an avenue or upon a building, it was put there invariably with a clear understanding of its relation to the surroundings.

We have some statues in New York, considered by critics as bad, but if they were appropriately placed, their defects would not be so apparent. With nearly all of our statuary, this defect of placing is deplorable; the statues are scattered without the slightest thought of their surroundings. A large figure is placed where a smaller one would be better; a standing statue, where a seated one would prove more harmonious; and some statues where it would be better to have none. Statues and monuments are often scattered about like so many letters without forming one grand word to tell of the sentiment and character of its people. Discordant music could not possibly be worse. A happy exception to the rule is the Dodge monument in Herald Square. This work is well thought out in relation to its surroundings.

TRAJAN'S COLUMN, ROME.

Sculpture in History.

A glance will show us how sculpture has been fostered and utilized by the countries of Europe and can easily be traced through their histories. Follow the various periods of sculpture from the times of the Egyptians, the Babylonians, the Assyrians, Phœnicians, Greeks and Romans down to modern times. The Ancient, Christian, Byzantine, Mediæval, Renaissance, and finally the modern sculpture partakes of the life and character of the age in which it lived.

Look at the glories of Athens; the greatness of a nation's his-

tory does not depend on its size. Greece was one of the smallest of European countries, but by the stupendous influence of a few Athenians in the time of Phidias, she came to be the foundation of inspiration for other lands. The pride of Greece centered, not only in her warriors and commercial wealth, but as well in her philosophers and her monuments. What Athenian was not justly proud of his Acropolis, where stood on an elevation several hundred feet above the city proper those mighty temples and statues? The Parthenon, that architectural and sculptural triumph, was a continual source of joy to the people.

FONTANA DI TREVI, ROME.

Again the Romans had their own Forum where the people gathered to discuss great questions of public importance. That was a spot quite different from our present street corners. It was a fitting place, by reason of its monumental grandeur, for events of national importance. On this hill stood the golden milestone from which distances were measured to the most extreme limit of that mighty empire. Here, likewise, was the Temple of Saturn and

the Arch of Septimus Severus. Then there were the monuments raised to great achievements, as the Colonna de Marco Aurelio, the Colonna Trajana, and those splendid open places, the Piazza Colonna, and later, the Piazza di S. Pedro.

Besides, almost all the cities of Christian Europe had their cathedral squares. How imposing is that majestic flight of stairs built in the very heart of Rome, decorated by statues of old Roman gods taken from the Baths of Diocletian! There was no especial reason why these stairs should be grand and commanding, but the project was thought to enhance the beauty of the city, and it was built. It was down these steps that Rienzi, the last of the Roman tribunes, fled, bleeding from twenty wounds, only to fall dead at their base. The Parthenon is worty of note, as is also that famous Fontana di Trevi and the Church of Trinita di Monti, with its impressive approaches.

STATUE OF CHRISTOPHER COLUMBUS, GENOA.

Almost every city of any importance throughout Europe shows forcibly a living pride in all works of a public character; Palermo, with its squares and great statues of noted churchmen; Venice, with its lovely Piazza della Signoria and that renowned

work, the Coleone; Genoa's L'Acquasola and its grand public square, in the center of which is the Victorio Emanuelo monument and that of Christopho Colombo.

FALL.
FONTAINE, RUE DE GRENELLE.

What have we to mention along with London's Trafalgar Square, the Houses of Parliament, Westminster Abbey and St. Paul's?

Paris is even richer. Can we figure having in New York such an imposing place as Place de la Concorde, or the equally harmonious spots, the Place Vendome, Place de la Bastille, or a stretch of buildings as those of the Louvre with its exquisite gardens of the Tuilleries? Then Paris has its Arch de Triomphe, Porte St. Martin, L'Opera, with its sparkling and effective sculptures, and two world-famous fountains, those of St. Michele, and of Rue de Grenelle.

WINTER.
FONTAINE, RUE DE GRENELLE.

In Berlin, we have the handsome Brandenburg Gate, the Royal Museum with its superb situation fronting a park and that most renowned of thoroughfares, Unter den Linden. And here is Schiller Platz, with its well proportioned theatre. In Munich, too, see how successfully the public scheme of architectural effect is carried out

in the Marine Platz, and in Nürnberg the Shöne Brunnen monument. And so it is all through Europe. It is seldom one goes to a city be it large or small, that he is not struck by the civic pride shown in its people.

SCHOENE BRUNNEN—NUREMBURG.

What have we in the way of public fountains outside of small and unimportant ones in our parks? Many rare opportunities offer themselves at the intersection of some of our streets. We need fountains badly; outside of half-a-dozen drinking troughs about Manhattan, if we except the highly useful but inartistic hogshead, which is also the saloon's cordial invitation to the driver, there is nothing. I recall the fate of a very charming fountain by the late Olm Warner, which stood at the northeast corner of Union Square. This lovely work was so little protected by the authorities, that after being ill-used by the teamsters, it was only saved from entire ruination by being removed and stowed away.

If we are to make New York the metropolis of the world, as it is that of our country, then we must, as the cities of Europe, devote at least a little time and a little money to things which have so long been neglected.

BRONZE DOORS—TRINITY CHURCH.

PAINTING.
(From the Hotel de Ville, Paris.)

THE DECORATION OF PUBLIC BUILDINGS.

A PLEA FOR AMERICANISM IN SUBJECT AND ORNAMENTAL DETAIL.

By Charles M. Shean.

Object of Mural Painting.

There are two clearly defined classes of decorative painting: Pure ornamentation that may consist of figure subjects as well as architectural ornament, and that which impresses a lesson. The first is essentially private, the second public.

THE SCULPTOR.
(Town Hall—Louvain.)

The natural and legitimate field of the decorative artist as an embellisher and enricher of interiors only is properly found in those buildings erected at the cost of individuals and not for the uses of the state. Here color for color's sake alone may be, and frequently is, the only proper and rational treatment. The pleasure of the eye, the joy of the senses, is the only aim and object. Let his ballrooms be as splendid, his dining-rooms and banqueting halls as magnificent, his boudoirs as dainty as the sums at his disposal and his skies will permit. For their elaboration all styles of ornament—the flora of the world, the costumes and fashions of all times, the myths and mythologies of all peoples are at his disposal.

But in the structures erected for public uses and with the public uses and with the public funds—our libraries, court houses, city

halls and state capitols—mere splendor should be tempered by appropriateness and the use of the building characterize and control its enrichment. Here the painter should commemorate and beautify, the one as well as the other, and both always together, and it does not seem improper nor untimely now to insist in view of the character of the decorations in two recent and important public buildings, one in Washington and one in New York, that the American artist when engaged in public work, shall look for his inspiration in his own country and among his own people.

From the
HOTEL DE VILLE, PARIS.

Art should be Indigenous.

In these buildings, the artists to whom the commissions were entrusted have abundantly demonstrated their mastery of their trade and their ability to successfully handle and solve complicated problems of color and composition. The result is a splendid technical achievement only—exotic, without savor of the soil and having no roots in the rich mould of this western world. No criticism of craftsmanship is here intended or implied, but the point of view only is challenged. If the mural art of this Republic, this government "of the people, by the people and for the people," is ever to become vital and living, is ever to become a dignified, honorable and worthy calling for men and women, it must cease to bedizen and bedeck. It must become more than an academic echo, a Renaissance reminiscence. The artist must learn to make the walls of our public buildings splendid with pictured records of American exploit and achievement, of American industry and commerce, of American life and culture.

Mural Painting in Europe.

As the cathedrals of the past were the picture books of the people, so the municipal and state buildings of modern Europe are glorified by the artists of the old world in the painted stories of their countries' greatness. The onrush of battle and the despairing resistance of the besieged are there commemorated, but there also the laurel crown is given the heroes of peace. Their physicians, scientists, teachers, inventors, authors and the writers of poetry, history and fiction find fitting remembrance. Together with the

ST. LOUIS FREEING THE PRISONERS.
(Palais de Justice—Paris.)

varied and rugged life of the past, the callings and occupations of the day are shown: The chemist in his laboratory, the teacher in the classroom, the farmer following the plow and the workman at his bench, and landscapes and views of city streets lend their aid.

At Paris the Pantheon's interior is not a stage for the mere display of an opalescent melange of things classical and mythological, for graceful form and skillful draping. But in this old fane of Ste.

Genevieve, this temple now dedicated "*aux grands hommes la patrie reconnaissante*," the Gallic artist has gone to the splendid past of France and found congenial themes. And nowhere else is the easy supremacy and primacy of the French school of painting of to-day more clearly shown than here in stories familiar to every French girl and boy. Though these paintings are among the most beautiful and successful of the century just past, they are more than masterpieces, craftsmen's diplomas, mere color enrichments; but

ARRIVAL OF LOUIS XI. AT PARIS.
(Hotel de Ville—Paris.)

because of them and what they tell and teach, the walls of this building are to every Frenchman a joy and an admonition, an encouragement and an incentive, and to us at the beginnings of civic art a lesson and an example.

In two other recent French buildings—the new Hotel de Ville and the Sorbonne—with much that is purely decorative and scenic, France and her Paris are ever before us. Many of the Mairies of

the various arrondissements are decorated, and here again it is the City of Light, old Lutetia, her varied story, her restless people, their struggles and their strivings, that furnish the prolific theme.

As it is at Paris, so is it throughout the length and breadth of the "pleasant land of France."

The towns and cities of Germany make the walls of their town halls color records and pæans of the stirring story of the long strife for civic rights and the well-won and well-used triumphs of their hardy burghers. The rich history and picturesque life; the opulence of the commerce and the skill of the medieval guilds of the old Hanse towns and free, imperial cities of the

BURIAL OF ST. GENEVIEVE.
(Pantheon—Paris.)

German fatherland are lovingly studied and ably depicted.

Nor are the Low Countries and England unmindful of their people's story and aspirations, as the multitude of painted records testify.

In America, here and here alone in all the civilized world, are libraries and court-houses erected whose walls are covered with learned and skillful compositions which give no hint that the people whose wealth furnished the means for the display, have a history,

LAYING OF THE CORNER-STONE.
(Sorbonne—Paris.)

a literature or traditions, or whose laws, or whose lawgivers are worthy of any remembrance. Excepting the capitol at Washington, whose rotunda shows the work of a past generation of painters who both knew and loved the land of their birth or of their adoption, the walls of America's public monuments, with few and unimportant exceptions, are bare and innocent of America.

Our Heritage.

And yet we have a history and a past—short it is true in point of time, but how filled with achievement, how varied and overflow-

ing with suggestion, as rich a mine for the painter as the historian. There is not one of the original colonies whose annals do not teem with acts of heroism and daring, whose wild and picturesque setting does not make it a natural subject for the muralist, and whose import and effect on the growth and later life of the commonwealths in which they occurred does not justify its recording for the lessons they convey to the citizens of the day—the beneficiaries of their sacrifices.

STREET SCENE.
(Hotel de Ville—Paris.)

The revolutionary epoch from Lexington to Yorktown and the War of 1812 furnish themes of capital import, few of which have been treated in a manner commensurate with their importance. The Mexican War, from the Alamo to the entry of our little army into the city of the Montezumas, now too little remembered! The American Navy, from its feeble beginnings to Dewey at Manila! Our merchant marine, once making our flag a thing familiar to all the harbors of the world!

FISHING.
(Natural History Museum, Paris.)

ers moving across the plains—wanderers, but empire founders?

Every city has its opportunities, and here at home, day by day work progresses on the new Hall of Records—the very name is a suggestion. Will it be an opportunity utilized or one neglected or misused? Will the new Stock Exchange interior be made worthy of its projected facade and significant of its location in the financial center of a continent and in a city which from its earliest settlement has been the meeting and mingling place of the nations?

Turning to our inland lakes and rivers, we have the Indian in his birch bark canoe, the voyagers with their loads of pelts paddling along the silent streams to be succeeded by the sternwheeler, the whale-back and the stately river steamers of to-day. For sheer picturesqueness, what equals the march of the pioneers of the west, restless emigrants from communities not yet old picking their way through the forbidding forests ever on the alert or guarding the lines of prairie schoon-

HUNTING.
(Natural History Museum—Paris.)

POTTERY.

Patriotic orders and societies for the study and commemoration of our past are steadily extending their fields and increasing their membership and usefulness. The beginnings and development of the colonies and states, of our cities, towns and villages, and the legends of localities are more and more investigated and the few remaining relics of the past treasured and preserved as precious heirlooms. The powerful, far-reaching and unselfish influence of these societies should be courted and enlisted for controlling and directing the character of future public wall work and preventing the interiors of our public edifices from becoming on the one hand bare without color charm and poor in effect as they will be if only architectural features are relied on, no matter how good they may be in detail or how fine the proportions of the room may be, or upon the other merely gaudy evidences of barbaric taste and misdirected use of wealth. Ornate, glittering with overabundant gilding, and showy with colored marbles and meaningless carving.

METAL FOUNDING.

or else filled with decorative compositions alien to our life and customs.

The field is fallow and the signs of the times propitious. On all sides there is a growing desire for monuments reflecting the commanding power and greatness of this Republic, and the wealth and progress of its states and cities. Native material for illustration and ornamentation are here in abundance. Our painters have adequate skill; their golden fleece the spoils of all the schools of the old world. They have but to turn their eyes to what is all about them and use and create opportunities and an American school of wall painters *of* us and not merely *among* us will arise and speedily remove what for the moment is a National reproach and shortcoming.

FROM THE ROYAL EXCHANGE.

BEAUTIFYING COLUMBUS CIRCLE.

By Rev. A. P. Doyle.

[We are indebted to Mr. Charles R. Lamb for the drawings accompanying this article; and to him is due also much of the credit for suggesting the idea.—Editor.]

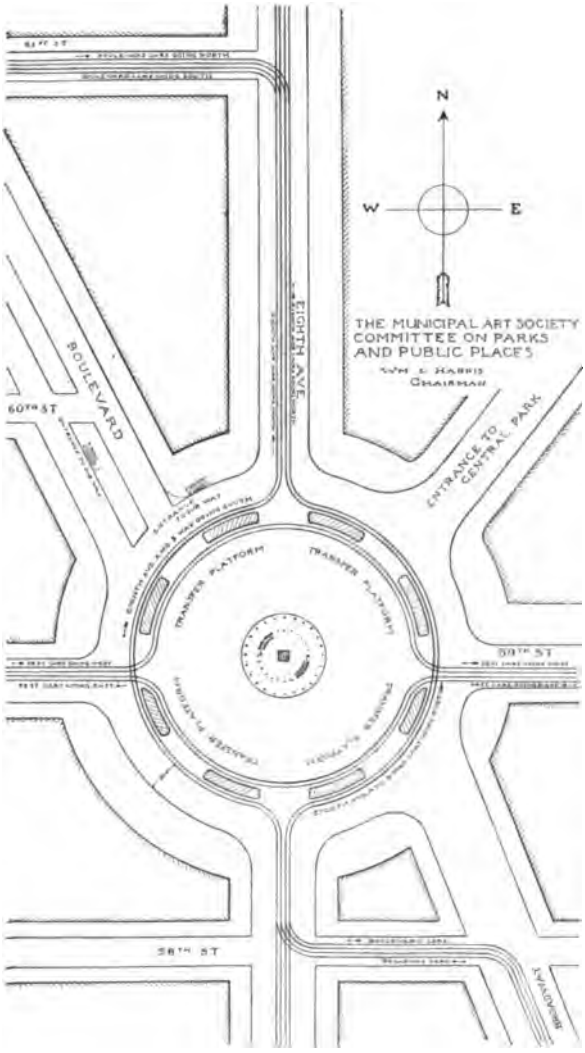
Already in New York the desire for city embellishment has attained no little vigor, and there are some notable specimens of real artistic value as its legitimate offspring. Its latest efforts have been concentrated in beautifying the entrance to the Central park at its southwestern corner. This portion of park bids fair to be its principal entrance, as the West Side of the city is already the favorite place for city homes. Here is located the magnificent Columbus monument, than which perchance in all the city is nothing grander or more imposing. About the monument is a spacious plaza outlined by a circle. This Columbus circle, as it is now called, makes not only a spacious vestibule to the park, but it is also the gateway to that portion of the city situated to the west of the park and whose western boundary is the North river.

Many cities excel New York in artistic possibilities, but there is none on which nature has been so lavish in bestowing her artistic treasures as she has been on New York. A magnificent harbor lies at her feet, broad majestic rivers are on either side; and imposing highlands rise on the west, making a fitting background for the glowing western sun. In the broad domain that Nature has given there is no more select spot than the section that is bounded by the green lawns of Central park on the east, and the flowing river on the west.

There are two entrances to this beautiful section, one at Columbus avenue, where the imposing stone church of the Paulist Fathers stands as a fitting lodge-house, and the other at the Circle, where the stone Columbus stands as another discoverer pointing out its beauties.

The project now in hand is to beautify the Circle. There are

very few who will not say that it does not need beautifying, or that it is not capable of being made the beauty spot of the city. As it is now, its surroundings are tumble-down houses and rickety shops.



PLAN FOR REARRANGEMENT OF COLUMBUS CIRCLE, N. Y.

The Metropolitan Street Railroad has pre - empted the street area of the Circle, and has laid its tracks in a most distressing variety of angles so as to render what should be a pleasure place of the people a menace to their lives. Here is probably the largest transfer station on the route. The busy avenues from the north and the south empty their quota of passengers here, and the main artery of traffic east and west across the center of Manhattan Island transfers to the intersecting lines. The cars drop their passengers in the middle of the roadway without any protection from the vehicle traffic that swirls about them, so that it takes one with a quick eye and very steady nerves to get on and off the cars without becoming panic stricken. In the near future, a station for the sub-

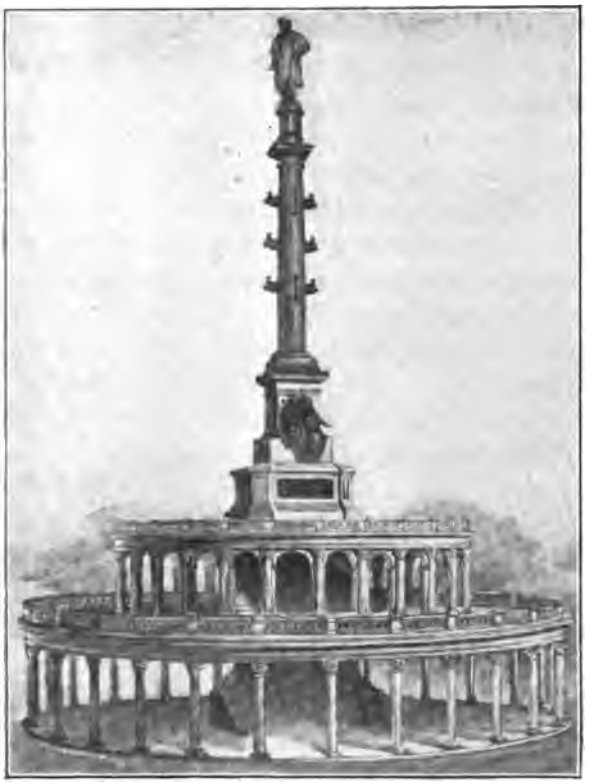
way will be constructed at the northwestern side, and still further add to the confusion. But the era of improvement has struck the Circle, and once the beginning is made it does not take long in New York to bring things to the fullest completion. The Municipal Art Society has submitted a scheme of reconstruction, that in a most effectual way accomplishes its purposes. The drawings published herewith show the proposed rearrangement.

The plan in contemplation provides for the removal of the tracks from the center of the area and throws them into a circle placed at such a distance from the curb line as to provide an avenue for vehicle traffic between the curb line and the tracks. The circle of tracks is double, leaving ample space between them for an artistic arcade, which will give shelter and convenience to the people. Having this arcade between the tracks will obviate the necessity of any one crossing the tracks in order to transfer from one car to another. All that is necessary is to step from the car to the raised platform of the transfer station and when the proper car comes along in its course around the circle, step on it and go one's way in safety. The advantages of this scheme, as summarized by the committee on parks of the Municipal Art Society, Mr. William L. Harris, chairman, are: (1) Passengers could transfer in any direction without crossing the tracks, and would be protected from vehicles and rain in stormy weather. (2) The cars could handle about four times as many passengers as is possible under the present arrangement. (3) All cars would move in the same direction, that is, opposite to the hands of the clock. (4) The circle would thus be made one of the most beautiful places in New York City. (5) This would have an effect upon adjoining property, making it so valuable that squalid and unattractive buildings would soon disappear.

The scheme is so simple that the wonder is that it has not suggested itself long ago. It has been submitted to civil engineers and they have said that there are no mechanical problems at all in its accomplishment. It has been shown to the park commissioners and public spirited citizens, and they have pronounced the plans most admirable, while the Municipal Art Society guarantees the artistic side of the scheme.

Associated with the collocation of the railway tracks in the circle, though not essentially connected with it, is the elevation of

the Columbus monument. The monument has now something of a squatty appearance. Its granite shaft rises too abruptly out of its broad and solid base. If it were lifted a little higher and the tapering line from base to apex were more gradual it would add to its dignity. The raising of the monument would furnish a convenient arcade for shelter in case of inclement weather. It would give a convenient platform from which to conduct political gatherings, and a second platform raised a story higher would afford a music stand for summer-night festivals. The architectural and artistic treatment of the arches and the colonnade is made as perfect as possible. The colonnade is planned to be eighty feet in diameter. About this is to be a space bounded by the inner car track of the circling set, which will be one of the choice gathering places in the city.



So perfectly have all the details of the scheme been wrought out that there has not been an effective objection from any source. The interests of the surface railroads have been conserved, the rights of the vehicle traffic have been regarded, the safety and comfort of the citizens have been safeguarded, and there will be added to the ornamentation of the city one of its most striking objects of interest.

STREET SIGNS AND FIXTURES.

By Nelson S. Spencer.

Any discussion of proper street signs and fixtures is really a discussion of two subjects, with both of which the public is greatly concerned, but only over one of which has it complete control. It is a municipal function to designate the names of the city streets—it may be, but is not yet, a general function to regulate private advertising. It is clear that the questions involved in the regulation of private advertising are much more intricate than those with which the public is concerned over its own signs and fixtures, and yet the latter are far from simple. The former are primarily legal and only secondarily administrative; the contrary is true of the latter. But it is not my purpose now to discuss the regulation of private advertising, partly because it is a subject by itself and partly because it behooves a municipality to put its own house in order, at least as soon as it undertakes to criticise the doings of its citizens.

The increasing complexities of modern life render an apparent final adjustment of any problem unstable. It seems a simple matter to designate plainly the name of each city street. It was comparatively so when the name could be written on the house corner or the corner gas lamp, and thus serve every purpose. Then the principal person to be informed was the pedestrian who was a stranger to the locality. But now, in a large city, the conditions are quite different. The persons to be informed are not only strangers to the locality, but passengers in a swiftly-moving trolley car, who know quite well the street they are traversing, but who wish to know the street they are approaching or passing. Strangers to the locality usually understand that the sign runs parallel with the street, but the passengers' demand is that it should run across the street, so that it may be read in transit. The gas lamp has largely disappeared and has been replaced by an electric lamp,

which does not lend itself readily to signs, being, among other things, usually too high.

The sign must be capable of being read equally well by day and by night. This is not certain of a sign on a house corner; it is not always visible at night and is rarely legible from any passing car. Moreover, a sign cannot always be readily affixed to the house corner at a proper height, or it may be one of many private signs on the house, and not easily distinguishable.

Further, the right of the proper authorities either to compel the owner of the corner building to affix a sign at his own expense, or to allow it to be affixed at the city's expense, has been questioned. This complication is peculiar to the United States, as such a right could not be questioned in other countries, where the powers of the government are not limited so strictly by a written constitution. There are, too, many corner lots not yet built upon, and a ready-made opportunity for street designation is lacking.

There is at present a moderate demand, which has been satisfied in some instances, that the nearest house number of the designated street should also appear upon the sign; another that the sign should indicate both the principal and the cross street. And, what is highly important, there is a growing demand that whatever

method of designation be used, it shall be, to say the least, not offensive to the eye, and, if possible, an artistic addition to the city.

There is a further matter to be taken into consideration. A modern municipality maintains or permits a number of public structures in the streets. It has posts for lighting either by gas or electricity, fire-alarm boxes, hydrants, police telegraph or telephone boxes, postoffice letter boxes, and often other structures. Any one of them, taken by itself, is not a great incumbrance, but, multiplied as they are, the obstruction to the street becomes serious. If possible, the addition of another structure, which is merely a sign-post, is to be avoided.

All these matters are conditions which ought to receive proper consideration and recognition in any scheme to satisfy the situation.

These conditions are not met in any city. In most foreign cities and in many of the United States, the streets are marked by plain signs—often blue enamel signs—affixed to the house corners, with some additional signs for special places. In the city of New York the signs were formerly usually placed on the corner street lamps. But at the present time there is almost an entire absence of any guide whatever to the lost and inquiring mind. There is no reasonable doubt that in time the conditions will be satisfactorily met, as the public demand becomes more and more insistent. But the result will be a slow growth, the outcome of various experiments.

In trying these experiments, there are certain points which should be considered fundamental and kept constantly in mind. Briefly stated, they are:

1. The signs should be easily legible by day and by night, and should serve two classes of persons—the stranger and the passenger in any vehicle of transportation in the street.

2. There should be no rigid rule of designation for the entire city, although the signs should be uniform so far as feasible.

3. The signs should be pleasing and, if possible, an artistic addition to the city streets.

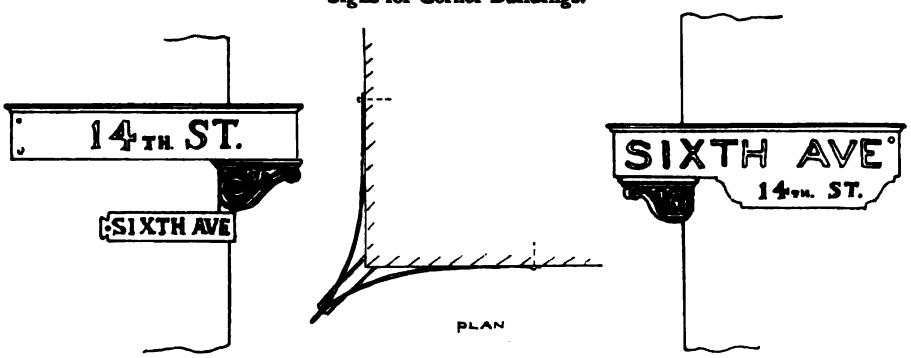
4. Street structures should be combined as far as feasible, and, if possible, reduced to one.

With these points in mind, the Municipal Art Society of New York has recently approached the problem. In New York City

there has been in the past no defined authority in any official to order the proper designation of the streets, and no law or ordinance touching the subject. Authority has been assumed from time to time by the official having charge of the streets, but no duty has been laid upon him which he could be compelled to observe.

Under the revised charter, which goes into effect on the first of January, 1902, the borough president in each borough is charged with the duty "of the placing of all signs indicating the names of streets and other public places." But when the Municipal Art Society sought to effect some substantial result it found that the first thing to be procured was the enactment of an ordinance by the Municipal Assembly by means of which responsibility could be definitely placed on some official. But before suggesting to the Municipal Assembly, as it did, a form of ordinance, the Municipal

Signs for Corner Buildings.

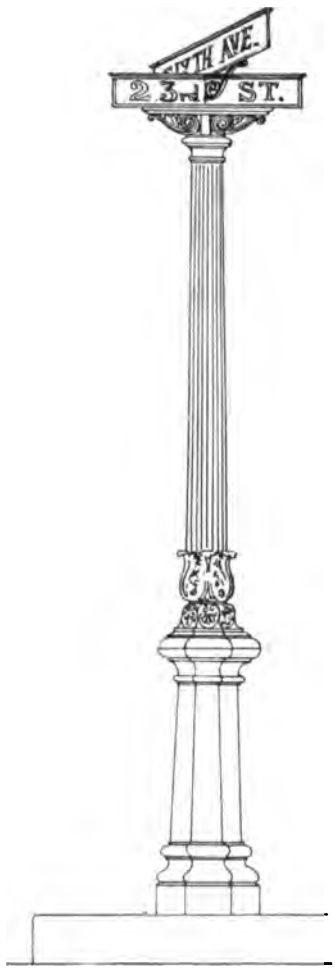


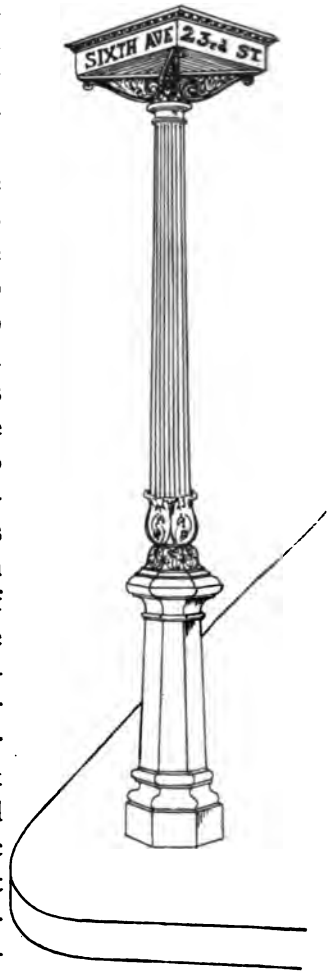
Art Society of necessity considered and prepared a scheme to meet, as fully as possible at present, the conditions stated. This scheme is briefly as follows:

All streets should be marked by a sign placed parallel with the street at each corner. This is the universal custom in all cities. While there is an argument for having the sign designate the cross street, experience has shown that such a method is extremely confusing and impracticable.

Generally, signs should be placed on corner buildings, or, where there is no corner building, on a temporary sign-post erected on the corner lot. If, however, the owners of the building or lot do not consent to this, or, if the official having charge of the matter consider that it is impracticable because the building does not lend

itself to such purpose, or is covered with other signs, or for any other reason, then the signs should be placed on at least two corner lamp-posts or other standards diagonally opposite each other. It is probable that every lot owner will consent to the use of his property for this purpose. Public opinion will compel it. But the plan contemplates that it may not be legally possible to compel him to do so. The sign on the building is much more stable and less liable to injury or defacement than a glass sign on a post in the street. But if the latter may be properly illuminated at the proper height—that is, for instance, if the cost of an illuminated sign on an electric light pole be not substantially prohibitive—its superiority is immediately apparent. A sign on an electric light pole, at the proper height, would be almost useless at night unless illuminated, as it would be wholly in the shadow cast by the lamp.





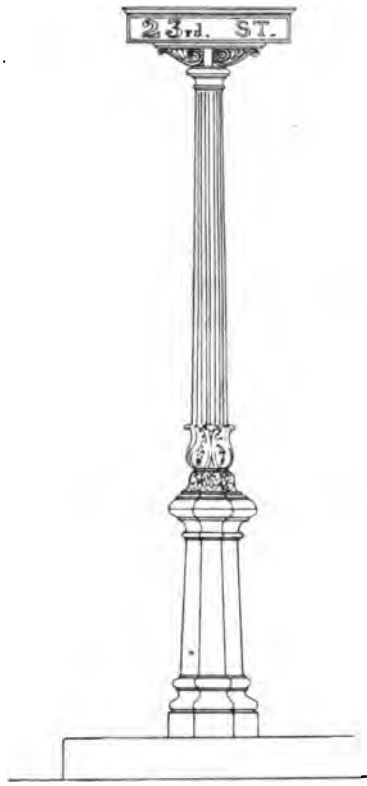
So far the law may be rigid. Some sign must be provided. But beyond that a very large discretion should be vested in the

executive authority. A system which is suitable for one portion—for example, the congested or thickly-populated portion—is not suitable for its outlying parts. A construction, which we hope some time to see, combining all the city's street utilities, which is entirely suitable in a well-populated district, may well be too expensive and out of place in a thinly-populated district. In thickly-populated districts, signs would naturally be substantially uniform, and much more attention can be given to them than in a thinly-populated district. In the latter, where the region is unbuilt, a plain post with a sign of the most ordinary character will be sufficient as a temporary designation, or the lamp-posts formerly in use can be moved to such districts and utilized for the purpose. It is quite as necessary to inform a stranger of the name of a street in such a region as it is in the more thickly-populated portions. It is indeed a little more so, because other information is not readily at hand. But it is not as necessary that the signs themselves should be costly, and the expense will naturally be reduced to a minimum.

Nor should the law undertake to fix the character of signs. Designs for signs to be used on buildings will necessarily be very different from those to be used on street lamps or other structures. Discretion is exceedingly important to satisfy the demands of the two classes of persons referred to. This it is not possible to do except by treating them separately. There is no method which will mark the street for a stranger with a parallel sign, and at the same time properly and quickly inform a traveler in a modern trolley car of the cross street. These cars move so swiftly that even their conductors are unable to say at once where they are. The name of the cross street cannot be read from a car parallel with the cross street, and, if parallel to the street being traveled, the fact is extremely confusing. If the sign parallel with the avenue of transportation have also, as has been proposed, the name of the cross street, the latter cannot be read unless the lettering is equally large, and that is again confusing and impracticable. To be read from a car, the sign cannot be placed on a building, because it will be too distant and often at a wrong height; it must be placed on the curb, and at a height to be seen from each side of the car.

The demands of the two classes of persons are opposite—one for a sign parallel with the street, and the other for one across it,

or, better still, at an angle with it, so as to be read in approaching as well as passing it. The proper official should, therefore, be vested with the discretion of maintaining two sets of signs. In streets on which are operated street railways, or which are used almost exclusively for driving purposes, the official should be authorized to utilize any posts at the corner of the street, or to erect them for the purpose, on which signs may be placed indicating the name of the cross or intersecting street, at about an angle of forty-five degrees. These would be placed on diagonally opposite corners. A passenger in a street car could then readily read the sign he may be approaching, and from it ascertain the name of the cross street. It would quickly become well understood that these signs placed at this angle indicated solely the cross street, or, if necessary, to avoid confusion to pedestrians, the fact could be stated on the sign in small letters that the sign was for the cars only. This maintenance of two sets of signs would be necessary only on avenues or streets largely used for transportation. They would be unnecessary on residence streets or those on which there are no street cars. Which signs should be used, should properly be determined by the official having authority in the matter.



All signs should be of such size and design as to be easily read by day and, so far as practicable, by night. This again involves the use of discretion in the executive official as to their placing, so that the light from street lamps shall fall on them at night. It is beyond reasonable doubt that an insistent demand will require in no distant time that they shall be illuminated; but, until illuminated, there should be such an association between the lighting of the

streets and the placing of the signs that the one will always serve the other. It is not difficult to illuminate house signs in conjunction with electric street lighting by means of a reflector, which shall cast a strong light upon them from above as the destination signs on electric cars are now illuminated. Or a glass sign box upon the electric light pole itself may be illuminated from within.

The statement need hardly be made that the letters should be of sufficient size to be read at some little distance. They need often to be read hurriedly, especially those to inform the passing traveler in the cars, and they must be, above all, distinct. In that respect the ordinary blue enamel sign can scarcely be improved upon.

Many suggestions have been made as to the character of the lettering. That also is a matter for executive discretion. In some parts of the city it may be of service to have the sign show both the name of the street designated and the cross street, or, perhaps, as has been done at times, the nearest street number. The design for o sign to be affixed to corner buildings, which accompanies the text, shows how this may be very well done without becoming confusing. But this is a matter which will be governed by convenience in various parts of the city and is not substantial.

But what a large city needs in this connection more than any other one thing is the institution of a general and comprehensive plan providing for the combination of all street fixtures. Such a plan would probably involve the erection of a structure as light as possible in construction, but capable of being closed and locked. The suggestion may, perhaps, best be understood from the accompanying plan and design. This shows at once how feasible it is to provide a single and convenient structure for the hydrant, fire-alarm box, the police telegraph or telephone, the letter boxes, man-hole, and finally the street sign. By combining all these fixtures in one structure, the street would be very materially relieved, and the structure itself would be a substantial addition to the beauty of the street. If adopted, it would become unnecessary to place signs on the house corners, and the signs for the street cars could be most readily attached at the proper height.

It is, of course, apparent that the necessary readjustment of these various public utilities could not be made at once, that the process would involve some co-operation between various depart-

ments of the government, and some expense, but with a vigorous official at least a beginning could be made in the more thickly-populated parts of the city, and in course of time the plan would be extended throughout the city. It would be a most convenient and needed addition to the well-regulated organism of a city.

COMPOSITE FIXTURE.
(Combining street sign, lamps, letter box, package box, hydrant, fire alarm, telephone and clock for registering patrolmen.)

In the determination of the artistic value of the signs, executive discretion may properly be limited, though not by the legislative authority. It is manifest that different kinds of signs will be needed in different places. Executive choice, then, should lie between one of several. Designs for the different classes, or for particular instances, should be approved by some body which corresponds to the Municipal Art Commission of the city of New York. If such a commission approve a number of different kinds of signs suitable for different parts of the city, the official could then exercise his choice among them, as the case requires. The principal thing to be accomplished is that the simplest sign should not be ugly. On the other hand, it should have positive beauty, and, if possible, great beauty. There is in this re-

spect much room for the exercise of invention. Practically, of course, invention is governed by a limit of cost. But if the work be done gradually, the cost will readily be met without becoming a burden, and the addition to the city's beauty can easily be made exceedingly great.

By way of illustration some suggestions are shown in the accompanying designs, to which reference has already been made. They relate to signs to be attached to corner buildings, and structures designed for all the street utilities of the city. They were prepared as suggestions for the use of the Municipal Art Society in its consideration of the question, and were not intended to be final. The society, indeed, considered a general competition most advisable, and offered to the Municipal Assembly of the City of New York, if it could be advised definitely of the requirements of the city and of a limit of cost, to conduct such a competition, at its own expense, and furnish the result for the adoption and use of the city. But before it could be advised of these requirements, it was necessary that they should be determined by some authority. This authority was necessarily administrative, but there was at the time no administrative authority who could be compelled to act. In order that action might be taken the society proposed to the municipal assembly an ordinance which would compel the adoption of some sign for every street, but with elastic provisions as to the character of the signs to be erected according to the varying needs of the locality. It would then be possible to have consultations with and the executive decision of one man on the various details to be considered, with which it is impracticable for any large body to deal. As this proposed form of ordinance embodies the ideas already stated, it may properly be quoted in full:

An ordinance authorizing and regulating the designation of the names of streets, avenues and highways in the City of New York.

It is ordained by the Municipal Assembly of the City of New York, as follows:

Section 1. The name of each street in the City of New York shall be designated by a sign stating such name, placed substantially parallel with the direction of the street at each corner formed by its intersection with any other street, and the Commissioner of Highways is hereby authorized and directed to designate all streets accordingly.

Sec. 2. Such designation shall be made as follows:

(a) If there be a building erected on the corner lot, by placing such signs on the intersecting street walls of such building, if the owner of such lot or building consent thereto.

(b) If there be no building erected on the corner lot, by signs placed on a suitable post erected at the street corner of the lot, if the owner of such lot consent thereto.

(c) If the owner of any corner lot or building do not consent to the use of his lot or building for such purpose, or, if in the opinion of the Commissioner of Highways it is impracticable to use the building on such corner lot for such purpose, then on a suitable post, lamp-post, electric-light pole, or other standard, or structure, either existing or erected for the purpose, and situated at the intersection of the streets, provided, however, that in such case not more than two such corners need be so designated, which shall be diagonally opposite to each other.

Sec. 3. In addition to the designation prescribed in the foregoing sections, the Commissioner of Highways is hereby authorized to designate further the streets of the City as follows:

In each street in which is opertated a street railway or other transportation line, or in which for other reasons he may deem it desirable, to place signs on a suitable post, lamp-post, electric-light pole or other standard or structure, either existing or erected for the purpose, and situated on diagonally opposite corners formed by the intersection of such street with any other street. Such signs shall indicate the name of the cross or intersecting street, and shall be placed at about an angle of forty-five degrees to the street, on which is operated such railway or other transportation line, so as to be legibly read by passengers in an approaching or passing car or other vehicle.

Sec. 4. All signs shall be of such size and be so placed, and of such design, as to be easily read by day, and, as far as practicable, by night. They may, by any suitable device, indicate both the street designated and the intersecting street, and the street number of the corner building. All designs for the signs shall be as few in number as may be consistent with the necessities of different portions of the city, and shall be of as artistic character as possible, having regard to their cost. Such designs shall be submitted by the Commissioner of Highways to, and be approved by, the Municipal Art Commission, but this shall not prevent the Commissioner of Highways, if necessary, from erecting temporary signs prior to such approval of the designs therefor.

If it be practicable for the Commissioner of Highways to combine the purposes of public utility other than advertising, for which any post, standard or structure may be used, he is hereby authorized to provide for such combination.

Sec. 5. The word "street" in this ordinance wherever used shall include any street, avenue, highway, road, court, or alley used as a public way.

Sec. 6. All ordinances or parts thereof inconsistent herewith are hereby repealed.

Sec. 7. This ordinance shall take effect immediately.

No action was taken on this ordinance. But now that the revised charter has specifically conferred authority in this matter upon the borough presidents, an ordinance has become of less importance. And in the meantime public opinion has become more and more aroused, and the demand for proper signs has become more insistent. Various specimen signs have been erected by individuals, associations of citizens, and by lighting corporations on certain

street corners of the city, illustrations of two of which accompany the text. Both of these are box signs attached to electric light poles, which are illuminated at night from within. As part of the lighting system of the city, they would be presumably maintained by the lighting company at a fixed price for each sign, and in certain portions of the city they would be of excellent service. They are not, however, the final solution of the problem. The trolley car passenger must not be forgotten. In the end, the simplest sign will be found to be the best. This means that no combination which tries to satisfy at once opposite demands will be effectual. As a result of this agitation the city seems likely to receive some relief. The newly-elected president of Manhattan borough has already announced his intention of giving the matter vigorous attention, and it is to be hoped that the presidents of the other boroughs will follow his example. It is the purpose of the Municipal Art Society to see if possible, that the satisfaction of the needs of the city in this respect shall not be a makeshift, but shall be at once progressive and beautiful.

ADVERTISING SIGNS AND ART.

By Milo Roy Maltbie.

In the eager desire to attract attention, every available vantage point has been occupied by some tobacco, soap, pickle or baking powder company. No wall area is so large, no building so high, no boulevard so beautiful, no scenery so entrancing that the advertiser has hesitated to flaunt the product of his skill. Indeed, the larger the wall, the more attractive the building, the more beautiful the avenue, the more scenic the landscape, the more eager is he to daub paint and posters. Nowhere can one escape him. If one flees to the country to refresh mind or body or seeks to enjoy the beauty of the landscape when passing from city to city, he is constantly confronted by his old associates of the city bill-boards. Only they are more hideous and more exasperating than those of the city. The newest and best are always reserved for the town dwellers.

Advertising Due to Competition.

The abhorrence for such indiscriminate use of advertisements and for the despoiling of beautiful streets, parks and landscapes is general. The advertisers are frequently condemned and berated. But who can blame them? If the people individually and collectively permit such things to be done and take no steps to prevent them, who can logically reprimand the keen, active and alert business man for experimenting in this line? And if he finds that customers are thereby attracted, and that his profits increase, can he be expected to discontinue the practice? His reason for ruining the landscape is not that he is indifferent to beautiful views; he erects an electric light sign upon the roof of a tall building, not because he thinks it requires that appointment to make it more artistic; he bedabbles the jutting rock not because he believes that nature is deficient; but he believes that it pays him to do so, and that if he

does not keep in the forefront of the procession and lead in the struggle to attract attention, he will lose money because others will wrest his trade from him by doing the very things which (it may be) he abhors, but which he, nevertheless, is obliged to do by keen business competition. The moment such advertising ceases to pay, he will stop instantly and will be among the first to accept willingly any plan whereby the enormous expense to which he is now put will be avoided, or be more effectively, as well as less inartistically used.

The accuracy of this analysis is illustrated by the decline of advertising wherever trusts have been introduced. The Standard Oil Company, the Steel Combine and the Sugar Trust, for example, spend practically nothing for advertising their products. Their competitors are few and unimportant. The articles which may be substituted for their products are also unimportant, and advertising would increase sales to a very small degree. Everyone is familiar with oil and sugar and the use to which they may be put; they need no introduction. But if, for any reason, competition should appear, resort would necessarily be had to advertising, and the bill-boards would at once begin to herald the excellent qualities of Rockefeller's kerosene or Havemeyer's sugar.

Art Appreciation Improving.

If it be true, as it evidently is, that the evils of advertising result from unrestraint, it follows that some sort of collective action ought to be taken. Two lines of policy may be adopted: (1) a widespread determination upon the part of consumers to patronize only those companies and corporations who keep their efforts within bounds, and who refrain from flaunting their wares before the eyes of the people in such obtrusive and objectionable ways as constantly to harass them; (2) the public regulation of bill-boards and public advertising in general.

It is signficant that advertisements are becoming more and more artistic. If we go back to the old English signs of the eighteenth century, we see that they served their purpose fairly well in that they enabled persons to locate the buildings for which they were looking. But to claim they were artistic would necessitate a broader definition of art than has ever been used. Even within the last decade one sees an increasing amount of art. The wooden Indian—the sign formerly universally employed by the tobacco

store—has developed into a well-proportioned, attractive maiden. She is, perhaps, not yet the Venus de Milo in every instance, but in so many cases this celebrated piece of sculpture has actually been reproduced, that it has become more nearly characteristic; and the day seems near at hand when this or some equally beautiful work of art will grace the entrance to cigar stores. The saloons have ceased to be the dark, dingy and poorly furnished taverns of a few years ago, and now use mirrors, electric lights, and plate and stained glass to announce their existence throughout the neighborhood. Drug stores have long utilized colored lights, and the mortar and pestle as distinguishing signs. Tea stores are made artistic by the use of Chinese vases or Japanese ornaments, the appropriateness of which is at once manifest. Florists and art dealers, from the nature of their trades, have unusual advantages and have been quick to utilize them, sometimes inartistically, but ever less and less so. It is so evident that the artistic display has a financial value that the competition to make the windows beautiful has become quite keen.

Other instances that may be mentioned are the use of the gloved hand or kid to signify glove stores; the blue bell upon the white background, telephone stations; white letters upon blue ground, telegraph or messenger service; tile and mirror finish, with white enamelled letters upon the windows, Child's restaurants or those of a similar character; three gilded balls, pawn shops; red, white and blue stripes, barber shops. Probably the stores which spend the largest sums upon window displays are those that deal in dry goods, which pay their decorators large salaries, and find it financially advantageous to employ those whose artistic sense is most highly developed.

These factors indicate that the public discriminates between the artistic and the inartistic, and is inclined to trade where signs and advertisements are less offensive. It follows that every attempt to improve the art sense will of itself lessen the evils of public advertising. Indeed, those countries in which art appreciation is highest, possess the best posters. France leads, as is to be expected, and it is said that hideous signs are torn down in French cities because of the general hatred of inartistic things. The advertising cabs of Paris, which are covered with posters, carry pas-

sengers for half fare. The Belgians, who stand next to the French in art, are also well advanced. At the other extreme are the English signs, which, for lack of art, are probably without competitors, except, perhaps, in the most backward and uncivilized countries.

These facts are explicable, not upon the basis that the *advertisers* prefer or dislike artistic signs, but that the *people* do or do not demand them. When art does not pay, who would advise an advertiser to spend money for that which yielded him no return?

Municipal Regulation.

It is not enough, however, to depend upon individual effort and art education alone. Collective action should be taken. City governments should set certain bounds beyond which private interests may not go.

In the first place, the size of signs and bill-boards should be limited. The struggle to attract attention has become so fierce that with the brilliant colors in the daytime and electric lights at night, a person is made aware of their existence at long distances and *compelled* to notice, however much he may wish to evade them. A single reading is not sufficient. The advertisement obtrudes upon his vision for blocks, and when one has been evaded another stares him in the face. It may properly be asked whether the citizen has not the right to demand that the sense of vision be protected from annoyance just as much as the sense of smell from disagreeable odors and the sense of hearing from loud noises.

Not a few attempts have already been made looking to this end. Edinburgh has for some time prohibited sky signs. Several English cities have banished advertisements from the municipal street cars, although at a considerable loss to the municipality. In many cases it is illegal to attach posters to trees, because their beauty is thus marred.

Dover Statute.

The case of Dover is particularly interesting and typical of the direction in which English cities are moving. Two monster bill-boards were erected, to advertise a Chicago product, against the chalk cliffs which have been so much admired by tourists, and which appear so attractive from the English channel. Local opinion was aroused, and after an appeal had been made to the firm responsible

for the advertisement, a bill was introduced into Parliament and duly enacted, which makes such a desecration of nature impossible. The act states:*

(1) No person shall erect, exhibit, fix, maintain, retain or continue any advertisement, whether now existing or not, upon any land, house, building or structure, except on such sites, hoardings or other structures as the corporation may in writing license (and for which license no fee shall be charged), and such license may be granted for any period not exceeding four years: Provided, always that a license shall not be necessary in respect of any site for advertisements (not being illuminated advertisements) exhibited within the window of any house or building, or for any advertisement of any entertainment exhibited on the land or building upon or in which the same is to be held.

(2) * * [Provides for the removal of advertisements erected or continued in violation of this act.] * * *

(3) Any person who acts in contravention of any of the provisions of this section or who violates any of the terms of the license shall be liable to a penalty not exceeding five pounds and to a daily penalty not exceeding twenty shillings.

(4) Any person aggrieved by the refusal of the corporation to grant such license may appeal to a petty sessional court after the expiration of two clear days after such refusal, provided he gives twenty-four hours' notice of such appeal and the grounds thereof to the town clerk, and the court shall have power to award costs, such costs to be recoverable in like manner as a penalty under this act.

(5) * * [Authority issuing license.] * * *

(6) * * [Advertisements of three railroad companies excepted.] * * *

The act also contains a provision prohibiting the erection of all sky signs whatever, which are defined as follows:

"Sky sign" means any word, letter, model, sign, device or representation in the nature of an advertisement, announcement or direction, supported on or attached to any post, pole, standard, framework or other support, wholly or in part over or above any house, building or structure, which, or any part of which sky sign shall be visible against the sky from any point in any street, and includes all and every part of any such post, pole, standard, framework or other support The expression "sky sign" shall also include any balloon, parachute or similar device employed wholly or in part for the purpose of any advertisement or announcement on, over or above any building, structure or erection of any kind or on, or over any street, but shall not include (1) any flagstaff, pole, vane or weathercock, unless adapted or used wholly or in part for the purposes of any advertisement or announcement; (2) any sign or any board, frame or other contrivance, securely fixed to or upon the top of any wall or parapet of any building or the cornice or blocking course of any wall or to the ridge of a roof, provided that such board, frame or other contrivance be of one continuous face and not open work and do not extend in height more than three feet above any part of the wall or parapet, or ridge to, against, or on which it is fixed or supported; (3) any such word, letter, model, sign, device, signal or representation as aforesaid which relates exclusively

(*) Mr. Richardson Evans, secretary of the Society for Checking the Abuses of Public Advertising, and Mr. E. W. N. Knocker, Town Clerk of Dover, have kindly supplied the data relating to this act.

to the business of a railway company, and which is placed or may be placed wholly upon or over any railway station, yard, platform or station approach belonging to a railway company, and which is also so placed that it will not fall into any street or public place.

The application for a license must state the name and address of person desiring license, the location, size, height and width of advertisement, the thing to be advertised and the materials and mode of construction. Then the approval of the borough engineer must be secured. The "boarding" must be kept in good repair. The advertisement shall not be improper, indecent or obscene.

Buffalo and Rochester Ordinances.

In the United States, several of the recent attempts to restrict the objectionable features of advertising have been approved by judicial decisions, which have almost universally upheld the power of the city so to act and the reasonableness of the ordinances issued. In *Gunning System vs. City of Buffalo et al.*, Justice Kruse, of the Supreme Court, ruled very clearly. The facts of the case were these: Wishing to make the city attractive and beautiful for the thousands that were to visit the Pan-American Exposition, a movement was set on foot to do away with some of the unusually large and obtrusive bill-boards. A city ordinance was passed, which read:

Section 48. No person shall hereafter erect any fence or bill-board more than seven feet in height within the city of Buffalo without permission of the Common Council; and any fence or bill-board erected contrary to the provisions thereof shall be abated as a common nuisance by any officer of the Fire Department after two days' notice to remove the same.

The plaintiff in the suit erected several bill-boards more than seven feet in height, and refused to apply for a license. The defendant Fire Commissioners, after having given due notice to remove the boards, cut down one of them. The plaintiff then sought to restrain the enforcement of the ordinance, contending (quoting from the decision):

—that the Common Council of the defendant had not the power to make the ordinance, and, even if it had such authority, the boards in question are neither fences nor bill boards, and that therefore the ordinance had no application to structures like these; and further contending that the legislature has not authorized and had no right to authorize the Common Council to pass such an ordinance.

That the legislature [says Justice Kruse] has such power I think is no longer a debatable question since the decision in the Court of Appeals in the case of City of Rochester vs. West (164 N. Y., 510), where a similar ordinance was upheld, and the question settled adversely to the contention of the defendant.

Ordinances of this character are upheld upon that great principle of law that every person yields a portion of his right of absolute dominion and use of his property in recognition of and obedience to the rights of others, so that others may also enjoy their property without unreasonable hurt or hindrance. This rule is essential for the mutual protection and benefit of every member of society. It is not taking private property for public use, but a salutary restraint on the noxious use of the private property by the owner. (Wood on Nuisances, sec. 1. 1 Dillon's Munic. Corp., sec. 141.)

In the West case the ordinance provided that "No person shall hereafter erect any billboard more than six feet in height within the City of Rochester without permission of the Common Council * * * In referring to that ordinance, Judge Martin says:

"It is obvious that its purpose was to allow the Common Council to provide for the welfare and safety of the community in the municipality to which it applied. If the defendant's authority to erect billboards was wholly unlimited as to height and dimensions, they might readily become a constant and continuing danger to the lives and persons of those who should pass along the street in proximity to them. That the legislature had power to pass a statute authorizing the city to adopt an ordinance which, if enforced, would obviate that danger, we have no doubt. Nor was it in conflict with any provision of the State or Federal Constitution. The fact that no injury has occurred by reason of the erection of the billboard in question, or that it is improbable that any such injury will occur therefrom, is not controlling upon the question under consideration."

In passing upon the validity of the ordinance in the Appellate Division in the same case, which was affirmed in the Court of Appeals, Justice Adams, in writing the opinion, after referring to the power which inheres in the State and each political division to protect, by such restraints and regulations as are reasonable and proper, the lives, health, comfort and property of its citizens, says:

"It is a fact so patent that judicial notice may fairly be taken of its existence, that the modern system of advertising by posters is such that one can hardly pass along the streets of any large town without being compelled to gaze upon advertisements which are enormous in size and not infrequently offensive in their character. It is true that there is nothing in the record before us to indicate that the defendant or his company ever made any improper use of this particular billboard, but the mere fact that it is liable to be so used would seem to afford sufficient reason why, in the interests of decency and morality, the police power of the city might very properly be exerted to restrain and regulate the business of bill-posting in some such manner as is provided by the ordinance we are considering."

Section 17 of Title II. of the Revised Charter of the City of Buffalo authorizes the Common Council to enact ordinances, specifically enumerating certain matters, following which it provides, in Subdivision 11, as follows:

"11. *And such further or other ordinances* not inconsistent with the laws of the State, as shall be deemed expedient for the good government of the city, the protection of its property, the preservation of peace and good order, the suppression of vice, the benefit of trade and commerce, the preservation of health, the prevention and extinguishment of fires, the exercise of its corporate powers and the performance of its corporate duties."

By Subdivision 8 of the same section the Common Council is also specifically authorized to prevent nuisances, as well as to abate them. These provisions I think furnish ample authority to the Common Council to enact this ordinance, and the evidence fairly establishes the propriety of making this ordinance.

But the justification for abating these structures by the defendant officers does not depend alone upon the validity or scope of this ordinance, for, if these structures are in fact public nuisances, they may be taken down, without regard to the ordinance, if necessary to abate the nuisance. Aside from increasing the hazard by fire and endangering the public safety, they materially decrease the value of property in the immediate vicinity. They are located in residential sections of the city. The size of the boards, the highly colored advertising matter, and their general appearance, make them unsightly. They have become in some instances a refuge, behind which idle and disorderly persons congregate, who have there resorted to unclean and filthy practices, to the great annoyance of the inhabitants living in the immediate vicinity of these structures. Their constant tendency is to create unclean and unsanitary conditions.

The grievances are more than fanciful, vexing only the supersensitive and fastidious. They are real, substantial annoyances to the people in general. I am of the opinion that these structures, with their attendant conditions, taking into consideration their location, appearance, danger to public safety, health and comfort, are of such a character as to condemn them as common nuisances. That the plaintiff's business is lawful cannot be questioned, and that these structures might be properly maintained in some localities may be conceded, but it does not follow that they are not unlawful in their present localities and surroundings and under existing conditions. * * *

* * * The plaintiff's complaint is dismissed with costs.

These two decisions, one by the highest court of the State, seem definitely to fix the law in New York.

Progress in Chicago.

In Chicago, the Art Association of that city succeeded in having enacted, first, the bill-board ordinance of July 9, 1900, and, second, the park ordinance (with special application to parks and boulevards) of January 28, 1901. The latter was peculiarly full and drastic in character, and it was selected for attack by the bill-posting trade. The opinion of Rush, Master in Chancery, to whom the case was referred, perhaps better divines the scope and limitation of municipal authority within constitutional limits, than has ever before been done.* The case was that of the *American Posting Service vs. the City of Chicago et al.* (in Chancery). The Master reported:

* * * At present the complainant company has about fifteen hundred boards, most of them situated on car line streets and on boulevards, where thousands of people travel daily. The company operates 140,000 lineal feet of boards, from 12

* I am indebted for a copy of the Master's opinion to Mr. George Kriehn, who was most active in securing the enactment of the city ordinances.

feet to 24 feet high; 10,000 lineal feet of these boards are 24 feet high. These billboards are erected on vacant ground, leased from private owners at the rate of 50 cents per running foot. The company has paid $36,000 for leases of this kind. It has $250,000 invested, including its plant, worth $100,000. Its business amounts to $150,000 a year; its profits $20,000 a year; live contracts $25,000, at present time. These contracts always provide for a continuous showing for a certain period of time. The company employs sixty men.

These billboards are constructed of white pine wood, of a height from 12 feet, called single deckers, to 24 feet, called double deckers, and the boards are raised from the ground from six inches to five feet. Their length varies from 25 feet to 500 feet. The thickness of the facing of the board is seven-eighths of an inch.

* * * * * * * * * * * *

As to the state of the art of billboard construction, according to the testimony of complainant's witnesses, engaged in the business, there is no known way of building billboards safer than as above described.

* * * * * * * * * * * *

The complainant's billboards are sometimes set on fire, in certain localities, and have been used as bonfires on election nights. There is no evidence of any building having been set on fire by any billboards, though some of the billboards adjoin buildings.

* * * * * * * * * * * *

Complainant's bill boards in severe storms have blown down and the fragments have been ripped off and blown and scattered across the public highways, driveways and sidewalks opposite. This has occurred several times within the past year. Some of these wind storms were of such severity as also to blow down trees. Twenty boards were damaged in one wind storm.

* * * * * * * * * * * *

The complainant instructs its men to clean up the paper rubbish taken off the boards and endeavors to keep the place as clean as possible. The paper litter is burned up either in the vicinity of the board or is taken elsewhere and burned. When the instructions are not complied with and complaint is made, the complainant has it cleaned up and taken care of.

Personal nuisances are committed in the rear of these billboards. This means that personal refuse is deposited behind the boards.

Billboards depreciate the rental value of real estate because of their danger in cases of wind storms, because of the paper, and because of their ugliness. Billboards are ugly and unsightly, and detract from the beauty of the streets, boulevards and parks.

There is no evidence that the advertisements billed are immoral.

The following ordinance was duly passed by the City Council of said defendant city on July 9th, 1900:

"Be it ordained by the City Council of the City of Chicago:

"Section 1. All signs or billboards other than those painted or erected upon any building shall be limited in their superficial area to one hundred (100) square feet, and shall be constructed of sheet or galvanized iron or some equally incombustible material, and such signs or billboards shall not be located nearer than twenty-five (25) feet back of the front line of the lot whereon the same is to be erected; provided, that signs not to exceed twelve (12) square feet each, may be made of wood, but such signs shall in all other respects comply with above section.

"Sec. 2. No such sign or billboard shall be constructed at a greater height than ten (10) feet above the level of adjoining streets, and the base of the sign or billboard shall be in all cases at least three (3) feet above the level of the adjoining street; in case the grade of adjoining streets has not been established, no sign or billboard shall be constructed at greater height than ten (10) feet above the surface of the ground.

"Sec. 3. No such sign or billboard shall be erected within five (5) feet of any other sign or billboard, and each such sign or billboard shall have independent support.

"Sec. 4. No such sign or billboard shall be erected upon or along any boulevard or pleasure driveway, or in any street where three-quarters of the buildings in such street are devoted to residence purposes only, unless the person or persons desiring to erect such sign or billboard shall first have secured the consent in writing of three-quarters of the residence and property owners on both sides of the street in the block where it is desired to erect such sign or billboard.

"Sec. 5. All owners of signs or billboards erected before the passage of this ordinance, which signs or billboards have a superficial area exceeding one hundred (100) square feet, or which are of greater height than ten (10) feet above the surface of the ground (other than such signs or billboards as are painted or erected upon buildings), shall pay an annual license on the 1st day of July in each year, at the rate of fifty (50) cents per square foot; and in case of failure to pay such annual license within thirty (30) days of July 1st of each year, such sign or billboard shall be torn down by the fire department under the direction of the Commissioner of Buildings.

"Sec. 6. Any person, firm, company or corporation who violates, disobeys, omits, neglects or refuses to comply with, or who resists or opposes the execution of any of the provisions of this ordinance, shall be subject to a fine of not less than five ($5.00) dollars per day, nor more than fifty ($50.00) dollars per day; and every such person, firm, company or corporation shall be deemed guilty of a separate offense for every day such violation, disobedience, omission, neglect or refusal shall continue, and shall be subject to the penalty imposed by this section for each and every such separate offense, and any builder or contractor who shall construct any sign or billboard on vacant property in violation of any of the provisions of this ordinance shall be subject to a like fine.

"Sec. 7. This ordinance shall be in force from and after its passage.

And the following ordinance was duly passed by the City Council of defendant City on January 28th, 1901:

"An ordinance declaring what shall be nuisances and providing for their abatement. (Passed January 28, 1901.)

"Be it ordained by the City Council of the City of Chicago:

"Sec. 1. All signboards and billboards now or hereafter erected on any residence street within two hundred feet of any park, park boulevard, or driveway, except signboards not exceeding three feet square used for advertising the sale or renting of the property on which they are located, and all signs on buildings on any residence street within said two hundred feet, except signs advertising the business within, are hereby declared to be public nuisances, and such first-described signboards or billboards now existing shall be re-

moved by the owners thereof within thirty days after the passage of this ordinance, or upon failure thereof, the same shall be torn down and destroyed under the direction of the Commissioner of Buildings.

"Sec. 2. Any person violating this ordinance shall be fined not exceeding one hundred dollars for the first offense, and for each subsequent offense shall be fined in a like amount and imprisoned not exceeding three months.

"Sec. 3. This ordinance shall take effect and be in force from and after its passage."

On September 7th, 1900, the duly authorized officials of the building department of said defendant city, notified said complainant to remove a certain board mentioned in complainant's bill of complaint, and after the passage of the ordinance of January 28, 1901, a duly authorized official of the building department of said defendant city gave notice to said complainant to remove certain of their boards, pursuant to said ordinance of January 28, 1901.

* * * * * * * * * * * *

The construction of these boards, as above stated, would be fairly safe and substantial for a board not to exceed ten feet high. It is not safe, nor substantial, nor permanent when their height, continuity and situation are taken into consideration. The necessity of keeping the front of these boards free of obstruction makes those near the public walks more liable to fall over the walks than to fall backward when the uprights break or wear, or rot attacks them; and their sheet-like structure makes them peculiarly liable to be blown some distance by the high wind.

The billboards of complainant, built of combustible materials, as aforesaid, and more than ten feet high, as aforesaid, and of a continuous length, as aforesaid, and situated within twenty-five feet of the public sidewalk line on many of the most-traveled public thoroughfares, as aforesaid, and built nearer the ground than three feet, as aforesaid, constitute a public danger, as a possible source and communication of fire and conflagration, and constitute a danger to the public safety in the event of a severe wind storm, and they indirectly produce danger to the public health from the personal refuse deposited behind them. For the same reasons stated in this paragraph, the boards described in this paragraph, also in fact constitute public nuisances, whether the same are so denominated in any ordinance or law or not.

"Dense smoke emitted from smokestacks or chimneys is a nuisance whether so declared by ordinance or not."—*Harmon vs City of Chicago*, 110 Ill., 400.

* * * * * * * * * * * *

In the case at bar the defendant city proceeded to regulate these billboard structures by passing the two ordinances aforesaid. The question, therefore, is, Are these two ordinances and all parts of them, valid? * * [Authorities to show what nuisances are.] * *

We will now examine these ordinances phrase by phrase:

First: The ordinance of July 9, 1900, Section 1—"All signs or billboards other than those painted or erected upon any building" * * *

Complainant's counsel contends that this classification omits to include signs and billboards upon buildings, and therefore discriminates between persons or places, in such manner as to violate the constitution of the State and nation in respect to special legislation. It is not necessary for a law to include all persons of all places; it is only required that they be uniform, operating alike upon all classes of persons brought within their provisions.

* * [Cases cited.] * *

To continue with the language of the ordinance:—"Shall be limited in their superficial area to one hundred (100) square feet." * * *

Permanent buildings are regulated so as to resist wind pressure. And why should not temporary signs and billboards be so regulated?

It is authorized under the police power, and also under the Sixty-first Clause of Section 1 of Article 5 of the Cities and Villages Act aforesaid.

"And shall be constructed of sheet or galvanized iron or some equally incombustible material."

This is a reasonable and proper regulation for the purpose of guarding against the calamity of fire, and is authorized under the Sixty-second Clause of Section 1 of Article 5 of the Cities and Villages Act, and under the police power.

"And such signs or billboards shall not be located nearer than 25 feet back of the front line of the lot whereon the same is to be erected."

* * * * * * * * * * * *

This regulation has not the effect of depriving persons of the use of a part of their property without due process of law. It deprives persons of the right to erect dangerous and unsafe structures on such part of their land as will endanger the public safety. It deprives them merely of the right to misuse their land, and the regulation is due process of law, being duly passed pursuant to statutory authority known as the police power. * *

"No such sign or billboard shall be constructed at a greater height than ten feet above the level of adjoining streets."

The restriction above mentioned to one hundred square feet would be incomplete without a limitation on the height of the board, because said restriction of one hundred square feet would still permit, for instance, a board fifty feet high and two feet wide, which would be exceedingly dangerous.

"It is a necessary and reasonable regulation authorized under the police power."—*City of Rochester vs. West*, 164 N. Y. 510. [Cited above.]

* * [Other sections upheld.] * *

"Section 3. No such sign or billboard shall be erected within five feet of any other sign or billboard, and each such sign or billboard shall have independent support."

The new construction under Section 1 of this ordinance, being of sheet and galvanized iron, a new reason arises making it necessary to break the continuity of the boards so as to prevent these boards from conducting lightning or equally dangerous electricity by means of crossed wires, a danger become more and more frequent in this electrical age. * * *

* * * * * * * * * * * *

"Section 4. No such sign or billboard shall be erected upon or along any boulevard or pleasure driveway or in any street where three-quarters of the buildings in such street are devoted to residence purposes only, unless the person or persons desiring to erect such sign or billboard shall first have secured the consent in writing of three-fourths of the residence and property owners on both sides of the street in the block where it is desired to erect such sign or billboard."

This section for boulevards and residence streets forbids the erection of such boards unless consent in writing is obtained of three-quarters of the property owners on both sides of the street in the block where the board is to be erected.

Here the City Council makes a sub-class of boulevard and residence street lot owners. Is the discrimination, or favor, based upon sufficient reason? The only reason that occurs to the master is this: Such sign and billboard structures are comparatively more ugly and disfiguring to the carefully maintained scenic beauty of boulevards and residence streets than in ordinary business and factory districts. Some of the witnesses who are park authorities have laid particular stress on the objectionable character of billboards facing the parks and boulevards.

It has been argued that foreign cities regulate improvements of property according to certain municipal art ideas, but this court will require more definite and better authority than this suggestion in order to support an ordinance that seeks to carry out some certain ideas of municipal art in its regulations of private property.

This section is invalid because it discriminates arbitrarily and without reason between signs and billboards on private property fronting the parks and boulevards, and private property fronting other streets of the municipality.

> "Section 5. All owners of signs or billboards erected before the passage of this ordinance, which signs and billboards have a superficial area exceeding one hundred square feet, or which are of greater height than ten feet above the surface of the ground (other than such signs or billboards as are painted or erected upon buildings), shall pay an annual license on the 1st day of July of each year, such signs or billboards shall be torn down by the fire department under the direction of the Commissioner of Buildings."

This is not a license upon the business of bill posting or sign painting, but structures known as signs and billboards and possessing the features stated in this paragraph.

This provision in relation to the payment of the license fee is invalid and void, as the City Council has no authority under the constitution or the act under which the city is organized to require any license for the erection or maintenance of signs and billboards. * *

We will now proceed to the consideration of the ordinance of January 28, 1901. This ordinance is as follows: [See above.]

* * * * * * * * * * * *

"It is a familiar rule of law that all penal statutes and ordinances must be construed strictly."—*Village vs. Webster,* 108 Ill., 419; *Elgin vs. Picard,* 24th App., 340.

Adopting a strict construction, it is seen from the evidence that the complainant has no sign or billboard "on" any residence street. They are all on private property. Therefore the defendant city has no power under said last mentioned ordinance to interfere with complainant's signs or billboards.

But even if we adopt a more liberal construction as that the ordinance last mentioned has reference to signs and billboards on private property facing on residence streets, still the last mentioned ordinance is unreasonable, invalid and unconstitutional for the following reasons:

First: The ordinance refers to a residence street. The ordinance gives no definition or method of ascertaining what is meant by a residence street, nor is there any legal rule whereby the meaning of such term can be ascertained.* *

Second: The ordinance is unreasonable, invalid and unconstitutional because it declares an entire class of things to be public nuisances, whereas only certain members of that class possessing certain features are in fact nuisances. It is not

a fact that "All signs and billboards excepting sign boards not exceeding three feet square used for advertising the sale or renting of the property on which they are located, and except signs on buildings advertising the business within," are nuisances. It depends upon the presence of certain features menacing the safety, health, convenience and good order of the of the public whether or not certain signs and billboards are nuisances. * * *

Third: The ordinance is also invalid because it discriminates between places within the municipal limits without sufficient reason therefor.

Fourth: The ordinance is also invalid because it further provides that all signs and billboards now existing, regardless of their condition or character, shall be removed within thirty days, or upon failure thereof, the same shall be torn down and destroyed under direction of the Commissioner of Buildings. This would be depriving citizens of property without due process of law.

Section 1 of the ordinance of January 28, 1901, would not permit a small sign board: "Keep Off the Grass," a foot square, on any part of a man's private lot. Even the park authorities would be prohibited from erecting such a sign.

* * * * * * * * * * * *

These decisions have been quoted somewhat at length, as they indicate the trend of judicial interpretation and as they suggest not only what ordinances may be upheld by the courts, but also ways in which the billboard nuisance may be dealt with.

Various Suggestions.

How far the artistic character of signs should be made a matter of municipal regulation is questionable. The decision last cited seems to refuse to accept aesthetic consideration as a proper basis for regulating signs. But if the billboards were limited in size, if it were made illegal to erect large signs or cover blank walls with large advertisements, advertisers would be obliged to adopt means of attracting the eye other than size. The poster itself would then have to be reconstructed, and more attention being paid to its composition, it would become more artistic and less offensive. Thus, by limiting size, two objects would be attained: freedom from large glaring signs, and the construction of more artistic posters.

It has also been suggested that cities erect their own billboards and thus prevent the use of signs which are inartistic, immoral or otherwise offensive to the public. Such a plan is doubtless applicable to street stands, kiosks or garbage receptacles, as is done in European cities; but it would doubtless be unwise to extend the principle any further, as almost the same results can be achieved without extending municipal activity in such a questionable direction.

It has been suggested that billboards might be taxed and a

scale of fees so arranged as to impose heavy burdens upon unusually large signs and inartistic displays. Aside from the constitutionality of such a method as applied to American cities, it is doubtful whether it would achieve the desired results. And if a form of advertising is at all proper, it should not be made to bear an unusual burden, and if it is improper, it ought not be allowed, even though it pay a considerable fee. However, there may be such peculiar local restrictions or other local conditions that the taxing power would be the best means of reaching the desired ends in some cases, and the tax might be placed so high as practically to prevent the signs particularly objectionable.*

*In a recent issue of the *Evening Post*, Mr. John DeWitt Warner suggested among other things:

"Where it is desired to restrict use by private owners of their own property, e. g., facing on a park, whenever lands are condemned for a park or street opening, there should be included such restriction of lands about as might be necessary for the purpose indicated. This would generally be an actual benefit to property thus restricted that damages could rarely be shown, and any awarded would generally be assessed back upon the fee thus restricted. In case of property fronting on parks already open, its condemnation to restriction only would generally involve only the slight cost of the proceeding itself—the fact and probable award in most cases being that all considered the value of the property was actually increased by a restriction which protected it as well.

"The most urgent need of all, however, is to rouse public opinion and educate public taste. As to how loud the reveille and how primary the teaching needed, witness the advertising for which our most dignified art association rents its premises; the similar prostitution by our city of enclosures within which it is building our finest buildings, the "yelling" blazon of their piano makers' name that our concert impressarios flaunt in the face of opera house audiences, and many another indication that, here as in other countries, it is representative of culture that must themselves be taught before they can lead."

Advertising—Its Uses and Abuses.

In every movement to restrict the use of signs, the advertisers themselves will assist. Thousands of dollars are spent every year and which need not be spent if there were some limit byond which one could not go. At first, the advertisements were very simple and unobtrusive, but the competition to attract attention has become so fierce that old methods are worthless, and the only hope of the advertiser is to repeatedly hit upon something new, to go a little further than his predecessor, until now enormous sums are annually expended. It is estimated that upward of four hundred millions of dollars are spent yearly in the United States for advertising.

Public regulation would save a large proportion of this, and so long as no one advertiser has an advantage, the firms competing for trade would be satisfied to conduct their advertising on a smaller scale.

At the present moment, we have become so accustomed to lurid signs that the small advertisement is no longer noticed. We are like an opium eater who requires a small dose at first, but whose system soon fails to respond to the small portion and demands an amount which would kill a person unaccustomed to the stimulant. But if return were had to normal conditions—if there were no enormous signs—we would soon be reached as effectively by small advertisements, with less expense and with no offense to public tastes.

Let no one misunderstand me or interpret the above as an argument that all advertising is an evil and should be rooted out. Some of it has an important part to play in progress. The adoption of new and improved ideas, methods and machinery would be greatly retarded if there were no such thing as advertising. I venture to assert that a large portion of the rapid progress made within the last twenty years, so far as the enjoyment and welfare of the people are concerned, is due to advertising. Indeed, there are thousands who glance over the advertisements in the magazines almost as punctually as they read the contributed articles it contains. But to conclude that all advertising is good is as illogical as to conclude that all is bad because some of it deserves severe condemnation. Upon this point a quotation from "The Publications of the American Statistical Association" for December, 1900—"Advertising in the United States," by Dr. Sydney A. Sherman—is apropos:

> Let it be understood that advertising has a legitimate function, namely, to make the qualities of goods and the conditions upon which they may be had, as a preliminary and necessary condition of their being distributed among the people. But when it is used to introduce or increase the sale of an injurious or worthless article; when it influences the public to an undue expenditure upon a good article; when its volume goes beyond what is necessary to inform the public; and when it serves merely to divert existing demand into particular private channels—in all these cases, and they constitute a large part of total, advertising is an economic waste. * * *

REVIEWS OF LITERATURE.

CITY GOVERNMENT.

The Improvement of Towns and Cities; or, the Practical Basis of Civic Aesthetics By Charles Mulford Robinson. New York, G. P. Putnam's Sons, 1901. 12mo, 309pp. Cl., $1.25.

It is most significant that Mr. Robinson has thus entitled his book, and more so that, on reading it, one finds its subject to be, as its sub-title expresses it, "The practical basis of Civic Aesthetics." Ten years ago such a title would have guaranteed essays on sewerage, street railways, markets, docks and ferries. But such themes are scarcely noted, much less treated, in the present volume; and, while most of the "improvements" he discusses do tell direct for material well-being and business prosperity, even these are treated as incidentals to Civic Æsthetics. It is the City Beautiful, and therefore proud, joyous, healthful and prosperous, that Mr. Robinson constantly keeps before us. Such treatment suggests his conviction—and the reception accorded his work verifies it—that problems of bare utility, that but lately claimed precedence, have been superseded in public interest by those of Civic Art in its broadest sense. Not that the former are less important than they were, but that their solution has been so far worked out that the great majority of us may assume them settled, so far as concerns any item in which our judgment might be of aid.

On the other hand, we have lately gotten wide awake to the many directions in which any citizen who can see, hear, smell or feel, and think a little to boot, can work towards making his city more congenial to those with like capacity to suffer or enjoy the condition in which they live and labor, or rest.

Mr. Robinson's theory is that a city should express the intelligence, morality and enterprise—the ideas and ideals of its people; also that these same cities, in fact, so fail to be what common taste demands and common sense should make them, that aesthetic suggestion is the contribution most called for toward municipal weal.

He is right to an extent little appreciated by many who purchase his book, and who rightly assume its appeal to be directed to them, our "good citizens," representatives of culture, leading business men, and political magnates. It is the masses, not the classes, who best appreciate art. In our courts, in our exchanges, in our legislatures, at work in our laboratories, adorning our "professions," are many distinguished and worthy men who have cultivated one or more faculties at the expense of others, until they have become blind to color, deaf to music, or dumb to feeling. But your average fellow-citizen is not so. Nine out of ten, taken at random from schools, work-shops, holiday crowds, can still see and hear and feel. The masses of no city ever failed to appreciate a beautiful park, a grand temple, a dignified statue, an effective historic painting, a strain of lofty music or a rhyme that deserved to be popular.

Our cities have only lately brought to the front what is henceforth more and more to be the force that directs and develops them—the civic pride and ambition of the mass of our citizens. For the first time, not merely in our history, but in

that of the world, they are so nurtured as to increase their capacity for enjoyment, but not so "cultured" as to be dwarfed in all directions in which they have not been trained into monsters of perfection.

The art lesson of the ages is that the only great art is public art. The Golden House of Rome and the Hanging Gardens of Babylon were doubtless noteworthy; the Alhambra and the Taj Mahal are beautiful yet; but the former were insignificant beside the Acropolis, where the Athenians glorified their state, and the others all but forgotten in comparison with the glories with which her burghers made Florence out-blossom her lilies.

Moreover, public art is the only fertile art: Once inspire the public of a city with ideals of dignity and beauty, and each, in his way and time, will develop them. Civic art is a fire built in the market-place, at which each can light his torch; private art a hearth fire, which warms only its builder, and goes out with his fortunes.

Mr. Robinson thus states the plan of his work:

(p. viii). "The purpose of this book, then, is not exhaustive discussion. It does not pretend to say all that can be said of the work for beauty in cities and villages; but, reviewing the whole broad field of the modern effort, it tries to pick out the salient points, to declare the best that has been done along every line, and how and when and where it was done—encouraging by showing the progress attainable because somewhere attained. So it would supplement with constructive criticism that which heretofore has been so largely destructive.

"But it has other practical purposes even than this.* It would show the co-ordination of the efforts, the dependence of each upon all the others, in order to secure a logical, harmonious result; the place and duty of each regiment of fighters in the battle for urban beauty, and would be a reminder that none fights alone. * * * There is work enough for all and a place for each.

"The specialist, seeing much in little, does not see far. In zeal for pavements, one forgets the trees; in zeal for parks, the thoroughfare is forgotten. It has seemed well, then, in the great new awakening of enthusiasm and concern for city beauty in a score of directions, at last to grasp them all, to group them logically in a single volume and show the relative positions."

Not merely has he frankly given credit to those from which he has gleaned ideas, but he has gone out of his way to do so, mentioning more than a hundred organizations now active "whose work, in one way or another, has here a mention." And, by the way, he gives such credit to the Reform Club in general, and Municipal Affairs in particular, that they are as indebted for the effective use he has made of their work and pages as he is welcome to the great amount he has borrowed therefrom.

The catholic scope of the book can be shown in no other manner so well as by quoting its Table of Contents:

"A. Foundations of Civic Beauty.

"I. The Site of the City. Its Influence—Treatment of Irregularities of Surface, of Water-front—Artificiality and Naturalness.

"II. The Street Plan. Pertinence of the Consideration—Diagonal, Gridiron, and Circular Plans—Their Union—Application in Details—Placing of Public Buildings—Suburban Territory—Street Nomenclature.

"III. The Elementary Constructon. Bridges—Street Paving and Cleaning —Street Lighting.

"B. Beauty in the Street.

IV. Suppression and Repression. Burial of Wires—Dealing with the Smoke Nuisance—Regulation of Buildings with Æsthetic Purpose—Scrutiny of Street Traffic—Noise—The Alliance of Hygiene and Æsthetics.

V. The Advertisement Problem. Censure of Advertisements on Æsthetic Grounds—Work of "Scapa" in England and the Control Exercised in Continental Cities—Encouraging Beauty for Signs in Belgium—Undeveloped Possibilities—Posters.

VI. Making Utilities Beautiful. Incentives to Artistic House-Fronts—Efforts in Belgium and Paris for "Art dans la Rue"—Municipal Art Societies in the United States—Color on Streets.

VII. The Tree's Importance. Rise and Esteem for Trees in Cities—Two Views as to Their Proper Ownership—Paris and American Cities—Activity by Village-Improvement and Tree-Planting Societies—The Tree's Sanitary Importance.

VIII. Possibilities of Gardening. *Rus in Urbe*—"Parking" in Business and Residence Sections—Gardens, Vines, and Boxes—Corporation Grounds.

C. Æsthetic Phase of Social and Philanthropic Effort.

IX. Parks and Drives. Æsthetic Function of Parks—Growth of the Demand for Them—Individual Beneficence—Associated Interest—Speedways, Beauty-Drives, Park Approaches.

X. "Squares" and Playgrounds. Primary Purpose of City "Squares"—Formalism and Appropriate Treatment—Suggestions for Treating Playgrounds—Their Prominence and Popularity—School-Yard Decoration.

XI. Architectural Development. Cities Popularly Judged by Their Buildings—The Rise of Luxury—Interior Adornment of Old Structures with Mural Paintings.

XII. Architectural Obligations. Protection of Ancient Architecture—The Choice of Building Sites—Picturesqueness for the Slums—Street Erections.

D. Æsthetic Phase of Educational Effort.

XIII. Function and Placing of Sculpture. Sculpture Necessarily Educational—Instruction in Morals, Civics, and History—Necessity of an Art Ideal—Suggestions for Placing City Sculpture—A Definite System.

XIV. Popular Education in Art. Its Relation to Civic Æsthetics—Art Educational Conditions in American Cities—English City Schools and Galleries—Place of Municipal Art.

E. Means to Secure Civic Æsthetics.

XV. Work of Individuals and Societies. Recognition of Art's Nearness to Life—The Local and General Associations—Local and National Societies of Art—Coöperation, Common Sense, Vigilance.

XVI. Work of Officials. Two Views of Municipal Art: (a) A Natural Product of Town Development—Responsible Officials Form Societies—(b) A Luxury Delegated to Separate Commissions—The Proposal for a National Art Commission—Theory of Paris as a Medium Course.

Conclusion. Appendix. Index.

His "Conclusions" are also best stated in his own words:—

(285) The first of these is re-emphasis of the necessity for a suitable foundation upon which to lay our civic adornment. * * * There is wanted appreciation of the futility—of the humor, and even of the pathos—of straining for urban dignity and beauty by putting statues on unpaved streets, by

erecting pretty street lamps but hideous bridges; of the folly of expecting city beauty if good facades may be covered with glaring signs, if the water-front be unimproved, the sky-line lost in clouds of inky smoke. * * *

(286) Genuine progress toward beauty of town and city can be only logical and harmonious. If the crusade is to amount to anything, it must begin with demands for comfort and well-being that will appeal to all as reasonable. The wish for a beautiful street will remain always visionary until the want is felt of a good street and a clean one. The civic Renaissance that broke over Italy in the fifteenth and sixteenth centuries was preceded by such a rational movement. * * * In the fourteenth century the cities presented a "spectacle of solid and substantial comfort," and the way was so prepared for the Renaissance.

Events move more rapidly to-day, but the order of procedure remains the same. The requirements of elementary construction are still essential to ultimate success. Communities that are going about the provision of adequate water and sewage facilities, that are spending their resources in the opening and paving of streets, and for keeping them clean, are taking the first steps, even if unconsciously, toward municipal art. * * *

(287) The second thought, then, is that civic art is not an outgrowth only of fashion and large gifts. They may do much to make beautiful a village, but in a populous community the roots should reach down to the common people, to the people who individually have little money but who by force of their numbers stamp the public taste and opinion, to those to whom the city's care is ultimately committed. There can be no exclusiveness to civic art.

Friends to the cause of beauty in the community should give their labor more than their money, for beauty of village and town is not a thing to be bought. A fine piece of sculpture will not do half as much as a little care and vigilance. * * * No legislation will give efficient city government if public interest be lacking, and municipal art waits for its final triumph upon efficient city government. * * * Such enthusiasm may well demand for itself the firm foundation of belief in the holiness of beauty. Looking out upon the world, let it note that if sunrise and sunset, if summer sky and winter night, if bending heaven and up-reaching earth have beauty, nature giving constant example of its coupling with utility, we may accept beauty of environment as part of the divine plan and fear to shut it out from the crowded life of cities. * * * Dare we say that a city must be ugly? Something very like religious fervor can be put into the zeal for city beauty, sustaining it through long patience and slow work.

It also appears, in review, that a dozen other practical motives than religious enthusiasm may give strength to the desire for city beauty. We have seen the economic argument, in the attraction of the wealth and culture of the leisure class and the transient trade of tourists. We have seen the philanthropic argument, in the brightening of the lives of the poor; the educational, in the instructive possibilities of outdoor art; the political, in the awakening to civic pride There are reasons in plenty for the interest of any city in the subject of municipal art. * * *

(293) In 1899 the Art Workers' Guild of London gave at the Guild Hall a spectacle, which they called a revival of the masque. It was named "Beauty's Awakening," and closed with a vision of the world's fair cities. One by one they came forward, picturesque and many-colored, to be introduced by the

Muse of History. There was Thebes, wearing garments of Egyptian blue and cloth of gold; Athens, in flowing white drapery, bearing a sculptured image; Rome, in the imperial purple, and Byzantium, in lilac and gold, and splendidly crowned. Coming to later days, we saw Florence attired in deep-blue, carrying a blood-red lily; Venice in crimson, with an upheld casket of jewels; Nuremberg in dull red and yellow, with Albert Durer in her train; Paris in gorgeous brocade, and wearing a crown; and Oxford in black robe and scarlet hood. Last of all was London, bearing about her the tokens of wealth, but with her train sadly soiled.

It is in laying to heart the lesson of this allegory, through turning to account the great riches, the mighty impulses of philanthropy and education, the high sanitary ideals, and the resources of modern science and engineering, that men and women are to-day setting about the purging of London's gown, with a trust in ultimate success; that modern cities hope to take their place with the little Thebes and Athens and Florence of long ago.

In the world-wide civic battle between Ugliness and Beauty, consider what allies have now been gathered to Beauty's side. To spur on these allied forces to new confidence and endeavor the present record of the combat has been compiled.

In arrangement, condensation, and index, the work is well-nigh ideal.

New York City. John DeWitt Warner.

HOUSING IN NEW YORK.

Report of the New York Tenement House Commission.

This is an exceptionally interesting and important document. It marks an era in sanitary progress, and the law which has been passed and signed by Governor Odell as a result of the Commission's labors is a vast step in advance in American legislation.

The Commission appointed by Governor Roosevelt comprised men of exceptional fitness for the task before them, and they worked with great industry and harmony. Special credit belongs to Mr. Robert W. DeForest, the chairman, for the tireless energy and unfailing tact with which he carried through the work, without creating needless antagonism nor yet making too many compromises. Mr. Lawrence Veiller, the secretary, also deserves commendation for the preliminary reports on Tenement House Legislation in New York (1852-1900), and on Housing Conditions and Tenement Laws in Leading American Cities, which contain much valuable information.

Governor Roosevelt, when he appointed the Commission, truly remarked as to the importance of its task. The housing problem has a vital relation to the drink question, the problem of crime, and of morals in general, all of which have a direct relation to good citizenship. There are 82,652 tenements in Greater New York, occupied by 2,372,079 persons, or two-thirds of the total population. One-half of these buildings are on Manhattan Island. If it is true that "as the houses, so are the people," it is no wonder that the metropolis is so lacking in civic pride, or so far behind other municipalities in many things.

The Commission held a number of public hearings to collect evidence from builders, landlords, health officers, sanitary experts and other interested persons. It also investigated the manner in which the present tenement laws are carried out, and rather astonished the building department officials by its revelations on these

points. The prevalent slackness in the enforcement of the laws was shown to be due to divided responsibility between the health and building departments, and therefore a new and distinct Tenement House Department was recommended and was ordered by the Legislature.

A careful record will be kept of every tenement and regular inspections made of sanitary condition. As there are 1,200 blocks of tenements on Manhattan Island alone, a force of 190 inspectors will be required for Greater New York. No tenement will be allowed to be occupied without a certificate from the commissioner that it is habitable, and this permit may be withdrawn should the building deteriorate and become unsanitary. This will prove of great help in enforcing the building laws, which have hitherto been a dead letter. Out of 11,000 recent violations of the law, a penalty was only enforced in *four* cases.

The commission is of opinion that the best solution of the present and future tenement-house problem will come through the creation of a separate department charged with no duty except the supervision of the tenement houses—a department of such size as to adequately fulfill such functions.

The much-mooted subject of air shafts was thoroughly investigated and their radical defects pointed out. It was advised that they no longer be permitted, but courts of ample area substituted. For inner courts a minimum width of twelve feet is laid down. Where inclosed by four walls, the minimum dimension is fixed at twenty-four feet. Space at the rear of tenements is slightly increased, and only 70 per cent. of a lot is allowed to be built on. Non-fire tenements are limited to five stories, unless forty feet wide, where six stories are permitted. More stringent rules in regard to lighting hallways are proposed, and also in regard to fire escapes.

By the new law, any tenement landlord who harbors a prostitute on his premises may be fined $1,000.

The Commission recommends that streets in tenement districts should be paved with asphalt, and that they should be well lighted and kept clean. More lavatories and public conveniences are recommended.

The average profit on tenements ranges from 5.81 per cent. to 7 per cent.

Baths are being introduced in most new houses of this class.

The press in general has commended the report for its "moderation and practicability," but it is sufficiently drastic in its provisions to satisfy the most radical reformer. If the right sort of a tenement house commission is appointed by the next Mayor, valuable results may be expected from his labors, while, in any event, he will not be able to evade responsibility for neglect to perform his duties.

New York City. Chas. F. Wingate.

FARM COLONIES.

Back from the Soil. By Bradley Gilman. Boston, L. C. Page & Co., 1901. 12mo, 242pp. Cl., $1.25.

This book is an account of an imaginary farm colony. It is supposed to be located some fourteen miles from a large city. The unlovely name of the supposed town is Circle City. One of the principal objects in the minds of the founders of the supposed colony is to obviate the loneliness of country life, and this they propose to accomplish by laying out the colony in an original manner. Imagine a small circle within a very much larger circle, but with the same centre. Let the portion of the large circle not included in the smaller be divided by radii into a large number of portions of equal size. Each portion will be wedge-shaped, minus

the thin edge of the wedge; each will front upon the small inner circle, and each will include a goodly portion of the entire space. The small circle is to be a public park and to include the public buildings of the proposed colony. The spaces between the radii are the farms, the buildings in each instance being so placed as to front upon the public parks and to be near the public buildings.

The plan is certainly ingenious. An interesting, though we cannot say convincing, account is given of the development of the colony, of its material prosperity, its educatioal and religious institutions, its self-government, and, perhaps most interesting of all, the introduction of intensive farming and of a number of small industries,—bee keeping, the raising of silk worms, ice cutting, etc., etc.

Dr. Edward Everett Hale, in an introduction, asks us to take the book seriously, and quotes the saying of Mr. Frederic Law Olmstead that he considered the urbanizing of the country to be an enterprise far more important in the life of America than the ruralizing of the cities, important as that is.

Mr. Gilman's book should stimulate interest, and we hope experiment, in the direction of inducing some of the denizens of our overcrowded city quarters to return to the more healthful conditions of the country. This is a field, however, in which an ounce of actual experience is worth a ton of theory. The experience of the Jewish colonies at Alliance, Rosenhayn, Carmel, and Woodbine, N. J.—the last being the late Baron de Hirsch's well-known community—should be, if carefully recorded, of inestimable value. A brief but interesting account of them is given in the New York *Evening Post* of October 29th, 1901. The experience of the Salvation Army farm colonies should also be most instructive if carefully and impartially recorded.

New York City. Homer Folks.

HANDBOOKS ON ENGLISH CITIES.

The Municipal Year Book of the United Kingdom for 1901. Edited by Robert Donald. London, Edward Lloyd, 1901. 12mo, 566pp. Cl., 2s. 6d.

The London Manual for 1901. Edited by Robert Donald. London, Edward Lloyd, 1901. 12mo, 352pp. Cl., 1s. 6d.

Municipal London, 1900. By C. A. Whitmore, M. P. London, A. and C. Black, 1900. 12mo, 90pp. Paper, 1s.

Few changes are made from year to year in the organization of local or municipal governments in Great Britain. The field of municipal activity, upon the other hand, is constantly widening. A few towns are relinquishing functions which they once possessed, but a larger number by far are undertaking new activities. Municipal water works, gas plants, electric lighting plants, street railways, tenements, lodging houses, baths, libraries, markets, abattoirs are becoming more and more numerous; the most noticeable increase being in the case of electric lighting plants and street railways.

The Municipal Year Book is principally devoted to this field of municipal government. Its plan is to state in the case of each town what functions are performed, to give the latest facts and statistics regarding each activity, and to chronicle the principal municipal happenings during the past year. Not infrequently, a brief historical introduction is given and something of the town government, including always a list of the officials. A few topics have special chapters, such as Housing, Tramways, Municipal Telephones, etc., but the general plan is to treat each town separately.

I know of no book which contains so much information and statistical data

regarding British municipal government. It would be considerably improved, however, if summaries were presented in tabular form.

The London Manual issues from the same source, and is similar in character. Here, more attention has been given to the governmental organization, as is necessary owing to the conglomeration of local areas and bodies. The Borough Councils Act of 1899 simplified matters somewhat, but there are still "nearly 400 different authorities engaged in the work of public administration." Of course the most of these are unimportant, but there are some 70 which deserve notice.

The principal difference between *The Manual for 1901* and its predecessors is the new section upon the twenty-eight boroughs recently formed. Each one of the boroughs is treated in detail, as in the *Year Book,* and in addition the act is published and comparative statistics collated. A number of maps and illustrations illumine the text. Its usefulness for handy reference cannot be overestimated.

Municipal London is a much shorter work, and is devoted to the Act of 1899. Chapter I is upon "The Growth of London Government." Chapter II explains "The London Government Act, 1899," supplemented by a reprint of the act itself. This book cannot take the place of the *Manual,* and is not intended to, but constitutes a very useful and clear exposition of the borough government recently constituted.

BOOK NOTES.

Moody's Manual of Corporation Securities (New York, Moody & Co., 1901, 8vo, 1,512pp., Cl. $7.50) devotes over 350 pages to telephone, street railway, gas and electric light companies, the only important omission of public service corporations being, therefore, water companies. The general plan is to give a description of the property, a statement of capitalization, earnings, dividends, etc., and a list of officers.

The Government of the American People, by President Frank Strong and Professor Joseph Schafer (Hougton, Mifflin & Co., 1901. 12mo, 250pp., Cl., $.65) interests us here only so far as its chapters on City Government are concerned. Thirty-two pages are devoted to this topic—one-eighth of the book—and it is very much doubted whether the student will have any accurate idea of the city or its government. The book may serve its purpose in rural communities and suit those who care little about cities, but it certainly is lacking the true prospective. Excepting the part upon cities, the book seems to be a decided improvement over many of its class.

Mr. Henry Holt, in *Talks on Civics* (New York, Macmillan Co., 1901, 12mo, 493pp., Cl., $1.25), has given us a much broader work. He sees that governmental forms are but the skeleton and that it is the living, moving, acting organism that is much more interesting, as well as important. The book deals with "civil relations," and treats, therefore, of rights of the individual, functions of government, disputed questions of politics. The form of government is left to other hands. Within, in the field delimited for study, the work is ably executed and pleasingly presented.

Monopolies Past and Present, by Professor James Edward Le Rossiquol (New York, Thomas Y. Crowell & Co., 1901, 12mo, 256pp., Cl., $1.25), is largely historical and deals principally with other than municipal monopolies, which are discussed in Chapter VII. The philosophy of the movement towards monopoly is well stated and the methods of controlling monopolies briefly considered. The arguments for and against municipal ownership are succinctly presented. The author has not

attempted to offer any new panaceas, but rather to present the facts in a concise manner.

Newyorkitis, by Dr. John H. Girdner (New York, Grafton Press, 1901, 12mo, 164pp., Cl. $1.25), is the diagnosis of a new disease which attacks city dwellers. "The mind, soul and body have departed more or less from the normal."—(p. 31.) The symptoms are "limited mental vision," "a morbid and perverted mind, dislike for offspring," "moral short-sightedness," physical deterioration, etc.; in short, all the evils that are peculiar to city life, and *many others*. The indictment is comprehensive. The treatment is "culture" in a broad sense, including mental equipoise, a Christian life and a well-developed body. Doubtless other cities, envious of the temporary advantages New York has secured by being allotted a place in medical science, will produce similar treatises upon Bostonitis, Chicagoitis, and Minneapolisitis.

A Landmark History of New York; Also, the Origin of Street Names, and a Bibliography. By Albert Ulmann. New York, D. Appleton & Co., 1901. 12mo, 285pp. Cl., $1.50.

This book, from its style, is evidently intended for youthful students of the city's history, and is so juvenile in places that it repels an adult reader. It does contain, however, a large amount of interesting information. It does not pretend to be a connected or philosophic history of New York, and reminds one of a guide-book, *a la* Baedeker. Those who wish to find what remains of the past, to trace the origin of the many queer street names, or to ascertain the important events associated with each locality, will find this book invaluable. A comprehensive bibliography and complete index add much to its usefulness.

Municipal Accounting. By F. H. Macpherson. Detroit, Book-Keeper Pub. Co., 1901, 8vo. 46pp.

This little book is designed for financial officers of small cities. The larger cities must frame their own forms of accounts and their own systems, which fit the peculiar local conditions. Indeed, it is doubtful whether the forms given will be of use to many cities except to suggest what to do. Nearly every city has a charter differing from every other city, and its financial department must be organized to fit the charter.

The book contains many tables which will be of use; but it is unfortunate that no word of explanation is inserted as regards the table showing what a sinking fund will aggregate at different rates of interest and for varying periods. As a matter of fact, interest does not compound annually, for immediate investment cannot always be found. Thus when the bonds come due, the sinking fund created to wipe them out is not sufficiently large, unless this considerable allowance is made from the tables given.

Public Health and Housing. By John F. J. Sykes. London, P. S. King & Son, 1901. 12mo, 216pp. Cl., 5s.

The title of this book indicates quite accurately the position of the author, who deals with the housing problem only in so far as it affects the health of the community. After stating the problem in these terms, and after showing the effects of bad housing, he suggests methods for improvement, the principal one being the enactment of ordinances and statutes requiring private builders to provide necessary light and air. The building which has not been constructed for housing many families, but which has been put to this use without extensive remodelling, seems to him to be the central figure of the difficulty. "I am firmly convinced," he says

upon page 146, "that the greatest hope of regeneration lies in adapting and enlarging the better type of tenement houses to the altered usage to which they are put, and without an effort in this direction; even when the acuteness of the overcrowding has been modified, the ill effects will continue to persist."

Dr. Sykes apparently does not believe that improvement of transportation facilities, or municipal housing, or economic reforms will greatly help in solving the problem; at least, he devotes no attention to some of these factors, and passes over others without extended discussion.

The book before us is not an elaborate discussion of the problem. The author aims rather to consider the elemental facts, and it will be of more value to the person who is not familiar with the question than to those who have read widely and studied long this most difficult problem.

Inside the Machine: Two Years in the Board of Aldermen. By P. Tecumseh Sherman. New York, Cooke and Fry, 1901. 12mo., 100pp.

The Board of Aldermen of New York City, like the local legislatures of many other cities, has of recent years possessed few powers, and is wholly devoid of confidence upon the part of the people. The Commission which drafted the Greater New York charter halted between two opinions. Upon the one hand, they feared to give the Municipal Assembly—the local legislature—full authority because of the popular distrust. Upon the other, they perceived that unless some power were given it, it would not attract to its membership persons of ability and influence. The final result was a weak compromise. A few new powers were conferred; but no sooner had the new charter been put into full operation than conflicts arose between the Municipal Assembly and the other city authorities, as regards appropriations, especially bond issues. Mandamus proceedings were begun, and shortly the few powers which the Council and the Board of Aldermen had were virtually taken from them. Mr. Stewart maintains that the Corporation Counsel did not treat the Assembly fairly, and did not protect the interests of the members as a lawyer for a client should. Naturally, Mr. Sherman sympathizes with the Municipal Assembly, but his book is throughout a fair and candid statement of the question.

The Board of Aldermen has seldom been considered an attractive subject for political disquisitions, and the little brochure before us is interesting and valuable in that it states in a candid, clear way the character of the Board, its membership, its functions, and how they are actually exercised, giving not only what is upon the surface, but also the inner workings and the influences which are brought to bear upon aldermen. To furnish a setting for this portion, Mr. Stewart has added chapters upon the city government in general, effects of consolidation, and an outline of the organization and functions of the more important departments.

Public Franchises in New York.—It is so seldom that the public gets to know the inside history of corporations controlling municipal monopolies that the article by Mr. Bowker, entitled, "The Piracy of Public Franchises," published in the October number of *Atlantic Monthly*, will attract wide attention and be very generally quoted. Mr. Bowker was, for a considerable period, First Vice-President and active executive of the New York Edison Company. In this position he became perfectly familiar with electric lighting franchises and made thorough investigations into other municipal monopolies. The result of these investigations are now published for the first time, and in a future number of MUNICIPAL AFFAIRS we expect to reprint all or the larger portion of the article. At present we shall be

content with quoting the concluding paragraph, which indicates Mr. Bowker's position as to what should be done:

"The remedy which will cut to the root of these evils—aside from palliatives which may be found in further legislation or in the actual application of present laws—is a municipal spirit, a civic courage, a political morale, especially on the part of the 'well-to-do,' which will overcome the timidity of capital, and stand fearlessly firm against Tammany in New York or against a Republican ring in Philadelphia. The power and danger of Tammany misrule is nowhere more strikingly shown than by the fact that such representative citizens, men of integrity, ability and honor, as made up the Edison Board, among them sincere and foremost leaders in altruistic enterprises, in crusades against vice, and in efforts for municipal reform, hesitate to lead in opposition to this form of Tammany domination, lest they should not have support of those for whose financial interests they are trustees. Unfortunately, the great public utility corporations of New York have passed into the hands of those whose sympathies and interests are in affiliation with Tammany rather than in opposition, and this is one of the grave difficulties of the present crisis. Yet there are wholesome signs of the revival of a municipal spirit, a civic renascence inspiring rich and poor alike, which may prove a potent and trumphant foe to the forces of evil, and redeem our cities, and with them our country, from the shame and degradation of municipal misrule."

BIBLIOGRAPHICAL INDEX.

[FOR EXPLANATORY NOTE, SEE PREVIOUS ISSUE.]

Abattoirs, Public.

"Municipal Slaughter-Houses." Mun. J. 10:479 (June 28, 1901).

"Public Abattoirs and Cattle Markets." Schwarz, Oscar. Harrap, G. T.; Douglas, Loudon M., Editors. London, Ice and Cold Storage Pub. Co., 1901. 8vo, 488 pp. 10s. 6d.

Accounting, Municipal. (See under **Finance.**)

Acetylene. (See **Lighting.**)

Advertising.

"Advertising Disfigurement." Evans, Richardson. Westm. R. 151:244 (1899).

"Advertising Signs and Art." Maltbie, Milo Roy. Mun. Aff. 5:738 (Sept., 1901).

Albany, N. Y.

Water Supply. "The Albany Filtration Plant and Some of the Results Obtained." Bailey, George I. Engng. Rec. 43:597 (June 22, 1901), Mun. J. & E. 11:16 (July, 1901).

Architecture. (See also **Building Laws.**)

See Boston.

"Comparative Desirability of the Formal or Irregular Treatment of Street Architecture in Large Cities." Watson, A. M. J. R. Inst. Brit. Arch. Series 3, v. 8.

"Harmony of Architecture and Landscape Work." Vaux, D. Engng. M. 11:1071 (1896).

"The Necessity for Official Control over Architecture in Our Towns and Cities." Emerson, W. Builder 78:604 (1900).

Art, Municipal. (See also **Architecture, Building Laws, Parks.**)

See Paris.

"Decoration of Public Buildings." Shean, Charles M. Mun. Aff. 5:710 (Sept., 1901).

"Engineering, The Esthetic Treatment of." Statham, H. H. Engng. M. 14:103 (1897).

"High Building and Its Art, The." Ferree, Barr. Scrib. M. 15:297 (1894).

"Ideal City, The." Ricardo, H. Amer. Arch. 69:29 (1900), Builder 78:613 (1900).

"Investment, Municipal Art as an." Garland, Hamlin. World R. 1:268 (May 4, 1901).

"Municipal Art." Mead, L. A. Brush & Pencil 6:220.

"Municipal Beauty." James, Edmund J. World R. 1:413, 436 (June 8, 15, 1901).

"Plant Decoration." Budd, Katharine C. Mun. Aff. 5:684 (Sept., 1901).

"Report of Committee on Town and Village Improvement Work." Park & Cem. 11:93 (July, 1901).

"Sculpture, Municipal." Lopez, Charles Albert. Mun. Aff. 5:696 (Sept., 1901).

"Street Advertising and the Remedy." Schoensigle, Fred C. Cal. Mun. 4:173 (July, 1901), Mun. 2:60 (July, 1901).

"Streets as Art Galleries, The." Mag. of Art 4:298 (1881).

"Triumphal Arches." Fish, Arthur. Mag. of Art 24:445 (1900).

Asphalt Paving. (See **Pavements, Paving.**)

Assessments, Special. (See **Finance.**)

Augsburg.

Housing. "Wohnungsenquete in Augsburg." Augsburg, Huttler, 1901. 8vo, 45 pp. 50 pf.

Australia.

"Australian Local Government." Mun. J. 10:552 (July 19, 1901).

Baltimore, Md.

"Street Railway System of Baltimore, The." St. Ry. R. 11:465 (Aug. 15, 1901).

Basel, Switz.

Street Railway Stations. "Strassenbahnhöfe in Basel." Schweiz. Bau. Aug. 17, 1901.

Bayreuth.

History. "Geschichte der Stadt Bayreuth von den ältesten Zeiten bis 1900." (2 vol.) Holle, J. W. and G. Bayreuth, Seligsbergs Antiq., 1901. 8vo, 371 pp. Paper, 4m.

Belgium.

Housing. "Les Habitations Ouvrières en Belgique." Soc. Fr. Habitations No. 3, 1901.

Berlin.

"Gas Supply of Berlin, The Private and Municipal." Allen, Walter S. Mun. J. & E. 11:13 (July, 1901).

Housing Question in Berlin. Grenzboten. Aug. 15, 1901.

Betterment. (See Assessments, Special, under **Finance.**)

"**Birkenhead [Eng.]**, Electric Tramways." Mun. J. 10:615 (Aug. 16, 1901).

Birmingham, Eng.

"Electric Traction in Birmingham." Ty. & Ry. W. 10:275 (June 13, 1901).

Bonds, Municipal. (See under **Finance.**)

Boston, Mass.

"Architecture in Boston, Municipal." Statham, H. H. Engng. Rec. 39:133 (1899).

Elevated Railway. Kimball, George A. New Eng. M. 24:455 (July, 1901); Shepard, Francis H. Elec. W. & E. 38:213 (Aug. 10, 1901); anon. Elec. R. 38:815 (June 28, 1901).

Bridges.

See New York.

"Aesthetic Treatment of Bridges." Carŏe, W. D. Builder 80:224, 266 (1901).

"Ornamental Bridges." Tyrrell, H. G. Am. Arch. 73:61 (Aug. 24, 1901).

Bristol, Eng.

Sewage Disposal. "Notes of Experiments Made on the Purification of Sewage by the Means of Stoddart's Improved Sewage Filter, at Knowle, Bristol." Yabbicom, T. H. Surveyor 20:64 (July 19, 1901).

Brooklyn. (See under **New York City.**)

Budapest.

"Municipal Lessons from Vienna and Budapest." Denicke, E. A. Mchts. Assoc. R. Vol. 6, No. 61, p. 1 (Sept., 1901).

"**Buenos Ayres,** Proposed Underground Electric Railways for." Tandy, L. D. Ty. & Ry. W. 10:282 (June 13, 1901).

Buffalo, N. Y.

Paving. "Brick Pavements in Buffalo Grow in Public Favor." Bardol, Frank V. E. Mun. J. & E. 11:63 (Aug., 1901).

——. "Comparison between Asphalt and Brick Streets in Buffalo." Brick July, 1901.

"Street Railways of Buffalo and Vicinity." St. Ry. R. 11:334 (June 15, 1901).

Building Laws. (See also **Architecture, Housing, Sanitation.**)

See London.

Caucus System. (See under **Elections.**)

Charities, City. (See also **Church and Municipal Conditions, Settlements, Unemployed in Cities.**)

See Austria, Belgium, Düsseldorf, France, Holland, Italy, New York, Russia, Switzerland, United Kingdom, United States.

"Abandoned Farms as Homes for the Unemployed and City's Poor." Blake, Clarence E. New Eng. M. 24:579 (Aug., 1901).

"Back to the Soil; or, From Tenement House to Farm Colony." Gilman, Bradley. Boston, L. C. Page & Co., 1901. 12mo, 242 pp. Cl. $1.25.

Bibliography of Poor Relief. "Bibliographie des Armenwesens." Münsterberg, Emil. Berlin, Heymanns Verlag, 1900.

"Coffee House Plan, The." Sweetser, Arthur Lawrence. Gunton's 21:239 (Sept., 1901).

Drunkards, Problems of Poor Relief for. "Die Aufgaben der Armenpflege gegenüber trunksüchtigen Personen." Samter, ——; Waldschmidt, ——. Sch. Ver. für Armen. No. 55, 1901.

Insurance, Charity Societies, and. "Das Verhältnis der Armenverbände zu den Versicherungsantalten." Olhausen, ——;Helling, Wilhelm. Sch. Ver. für Armen. No. 53, 1901.

Social Aspect of Poor Relief. "Sociale Ausgestaltung der Armenpflege." Flesch, ——; Soetbeer, ——. Sch. Ver. für Armen. No. 54, 1901.

"**Chichester,** Municipal Engineering Works in." Saunders, James. Surveyor 19:680 (June 7, 1901).

Cincinnati, O.

Engineering. "Municipal Notes at Cincinnati." Engng. N. 46:22 (July 11, 1901).

"Water-Works, Notes on the Construction of the New Cincinnati." Engng. Rec. 44:26 (July 13, 1901).

"**Civil Service Reform.**" Smith, Marion Couthouy. Good Govt. 18:75 (June 15, 1901).

Concerts.

"Song and Music in Courts and Alleys." Jones, H. Lee J. Mun. J. 10:499 (July 5, 1901).

Chicago, Ill.

"Municipal Conditions in Chicago." Eddy, Arthur F. Hrprs. Wkly. 45:647 (June 29, 1901).

"Accounts of Chicago. The Municipal." Haskins, Charles Waldo. Public Policy 4:300 (June 29, 1901).

"Municipal Street Lighting at Chicago, Ill., Thirteen Years Experience with." Ellicott, Edward B. Engng. N. 45:317 (May 2, 1901).

"Park System of Chicago, The South." Leonard, William E. Mun. J. & E. 11:95 (Sept., 1901.)

Street Railways. "Committee on Local Transportation: Suggested Outline of Work." Sikes, George C. Public Policy 5:42 (July 20, 1901).

——. "The Franchise Question in Chicago." St. Ry. R. 11:358 (June 15, 1901).

Water Supply of Chicago. Embree, F. B. Sci. Am. June 21, 1901; Spengler, J. H. J. W. Charities Soc. Eng. Aug., 1901.

Conduits.

"Concrete Subways for Underground Pipes." Allen, Arthur Taylor. San. Rec. 27:495 (June 6, 1901), Gas Wld. Aug. 10, 1901.

"Highfield-Cater System of Underground Mains." Elec. R. (Lond.) Aug. 23, 1901.

"Subaqueous Tunnels for Gas Conduits." Cummings, W. W. J. Assoc. Engng. Soc. (June, 1901).

"Underground Subways." Allen, Arthur Taylor. Suryevor 19:689 (June 7, 1901).

Councils and Boards of Aldermen. (See also **Mayor.**)

See New York.

Day Labor and Contract System. (See **Labor and Its Relation to the Municipality.**)

Debts and Loans, Municipal. (See under **Finance.**)

Denver, Col.

"State Boards." Le Rossignol, J. E. Ann. Pol. Sci. 18:357 (Sept., 1901).

Dortmund.

Fire Department. "Geschichte des Feuerlöschwesens der Stadt Dortmund.". Tenius, Gustav. Dortmund, W. Rüwell, 1901. 12mo, 164 pp.

Dresden.

Municipal Electric Plant at Dresden. "Das städtische Elektricitäts-West-Kraftwerk zu Dresden." Meng, Walter. Elek. Zeit. 22:495 (June 20, 1901).

Dublin.

"Tramway System, The Dublin United." Elec'n. (Lond.) Aug. 9, 1901.

Dusseldorf. "A Municipal Nursing Home." Mun. J. 10:457 (June 21, 1901).

Edinburgh, Scotland.

"Tramway Dispute, The Edinburgh Cable." Ty. & Ry. W. 10:440 (Aug. 8, 1901).

Elections, Ballot Reform in Cities. (See also under **Proportional Representation, Parties and Party Politics.**

See Germany, New York.

"Some Suggestions for Municipal Reform." Greene, J. Evarts. Worcester 1:355 (June, 1901).

Electric Lighting. (See **Lighting.**)

Electrolysis.

"Secondary Reactions in Electrolysis." Richards, Joseph W. J. Frankl. Inst. 152:201 (Sept., 1901).

"The Question of Electrolysis." Gas W. (June 29, 1901).

Elevated Railways. (See **Transit Facilities**).

"**Elmira,** Success of Mechanical Filter at." Caird, James M. Mun. J. & E. 11:18 (July, 1901).

Engineering, Municipal. (See also under **Conduits, Electrolysis, Garbage Disposal, Sanitation, Sewage Disposal, Streets, Transit Facilities, Water, Etc.**).

See Chichester. Cincinnati.

England. (See **United Kingdom**).

Finance.

See Chicago, Germany, Italy, United Kingdom, United States.

"Accounting Reform, Progress in Municipal." Bemis, Edward W. Public Policy 5:92 (Aug. 10, 1901).

——. "Local Self-Government, Taxation, Public Accounting." Foote, Allen Ripley. Pub. Policy 5:104 (Aug. 17, 1901).

"Taxation of Gas Companies." McLean, George. Am. G. Lt. J. 74:926 (June 17, 1901), Prog. Age 19:276 (July 1, 1901).

——. "Special Assessments for City Work." Weeks, James L. Mun. J. & E. 11:106 (Sept., 1901).

Fires, Municipal Fire Departments, Insurance, Etc. (See also **Building Laws.**)

See Dortmund.

"Die Feuerbestattung." Brackenhoeft, Ed. Hamburg, Frederking, 1901. 8vo, 23pp. 60 pf.

Garbage and Refuse Disposal. (See also **Sewage Disposal, Streets.**)

See Glasgow, United States.

Gas. (See **Lighting.**)

Germany.

"Asphalt Pavements in German Cities, The Use of." Kuichling, E. Mun. J. & E. 11:9 (July, 1901).

"City Administration in Germany." James, Edmund J. Am. J. Sociol. 7:29 (July, 1901).

——. "Die deutsche Städteverwaltung." Beck, ——. Zeit. für Social. 4:554 (Sept. 17, 1901).

Elections. "Die Dreiklassenwahl in den preussischen Städte- und Landgemeinden nach dem Gesetze vom 30. VI. 1900." Evert, G. Berlin, Heymann, 1901. 12mo, 86pp. 1m.

History. "Ueber die deutschen Städteprivilegen de XVI., XVII. and XVIII. Jahrhunderts." Gengler, Gf. H. Leipzig, 1901. 8vo, 44pp. 1m. 20pf.

Housing Question in Bavaria. "Wohnungsgesetzgebung in Bayern." Cahn, Ernst. Ar. Soz. Gesetz. Stat. 16:698 (Hft. 5 & 6 1901).

——. "Die Wohnungsfrage und die preussischen Ministerialerlasse vom 19. III., 1901." Lichler, P. Berlin, Hofmann & Co., 1901 8vo, 27pp. 75pf.

"Taxation in Germany, Local." Row-Fog, J. Ec. J. 11:354 (Sept., 1901).

Transit Facilities. "Electric Railways in Germany." Guenther, Richard. Cons. Rep. 66:377 (July, 1901).

——. "Electric Railways in Saxony." Warner, Brainard H., Jr. Cons. Rep. 66:378 (July, 1901).

Glasgow.

Garbage Disposal. "Cleansing a Great City." Mun. J. 10:641 (Aug. 23, 1901).

Housing. "Hidden City Slums." Mun. J. 10:459 (June 21, 1901).

Sanitation. "How Glasgow Fought the Plague." McColl, D. Mun. J. 10:500 (July 5, 1901).

"Telephones, Glasgow's Municipal." Mun. J. 10:655 (Aug. 30, 1901).

"Tramway System, Glasgow's." Shaw, A. C. St. Ry. J. 17:623 (June 1, 1901).

——. "Glasgow Tramways Report." Ty. & Ry. W. 10:442 (Aug. 8, 1901).

"Water from the Scotch Lochs." Mun. J. 10:477 (June 28, 1901).

"**Gloucester** Water Works, The Appraisal of the." Engng. Rec. 44:121 (Aug. 10, 1901).

Great Britain. (See **United Kingdom.**)

Halle a. S.

"Municipal Administration in Germany as seen in the Government of a Typical Prussian City, Halle a. S." James, Edmund J. Chicago, University of Chicago, 1901. 8vo, 93 pp. Paper, 50c.

"**Hartford, Conn.,** The Parks of." Olmsted, John C. Park & Cem. 11:123 (Sept. 1901).

Havana.

"Organization of the City Government." Govin, don Antonio. Ann. Pol. Sci. 18:363 (Sept. 1901).

Sewerage and Drainage Systems of Havana. Gray, Samuel M. Engng. Rec. 43:593 (June 22, 1901), Engng. N. 46:38 (July 18, 1901); anon. Engng. Rec. 43:593 (June 22, 1901), 44:50 (July 20, 1901).

History of Municipalities. (See also **Population.**)

See Bayreuth, Germany.

"The Town and Cloth Halls of Flanders." Anstead, A. Mag. of Art 17:421 (1894).

"The Ancient Town Halls of Europe." Rowland, A. Am. Arch. & B. 26:31.

Home Rule for Cities, State Administrative or Supervisory Boards, Special Legislation, Relation of City and State Generally.

See Denver, United Kingdom, United States.

City and State. "Territorium und Stadt. Aufsatze zur deutschen Verfassungs-, Verwaltungs-, und Wirthschaftsgeschichte." von Below, Georg. Munich, Oldenbourg, 1901. 8vo, 342 pp.

"Home Rule for Cities." Wilcox, D. F. Municipality 2:51 (July, 1901).

"Local Self-Government, Taxation, Public Accounting." Foote, Allen Ripley. Pub. Policy 5:104 (Aug. 17, 1901).

"Municipal Self-Government." Foote, Allen Ripley. Pub. Policy 5:30 (July 13, 1901).

Self-Government. "Die Selfstverwaltung in politischer und juristischer Beudeutung." Hatschek, Julius. Staats. Volk. Abhand. Bd. II., Heft I. (1898).

Housing of the Working Classes and of the Poor in Cities, Lodging Houses, Tenement Houses, Slums, Etc. (See also **Population.**)

See Augsburg, Belgium, Berlin, Germany, Glasgow, Liverpool, London, United Kingdom, United States, Wolverhampton.

"On the Housing of the Working Classes." Warry, J. King. Pub. Health (July, 1901).

"Report on the Housing of the Poor." Ellery, T. George. Adelaide, Council, 1900. 12mo, 68 pp. Free.

"The Dwellings of the Poor and Weekly Wage-earners in and around Towns." Worthington, T. Locke. London, Swan Sonnenschein, 1901. 8vo, 64pp. Cl. 2s. 6d.

The Housing of the Poor: A Critical Note." Garrett, J. H. San. Rec. 23:112 (Aug. 8, 1901).

The Housing Question. Stein der Weisen. Heft 5, 1901.

The Housing of the Working Classes." Char. Or. R. 10:9 (July, 1901).

Land Questions, Housing and. Grenzboten (June 27, 1901).

Light and Air in Tenement Houses." Engng. Rec. 43:577 (June 15, 1901).

Small Houses. "Bau und Einrichtung von Kleinwohnungen." Nussbaum, C. Chr. Berlin, Heymann, 1901. 8vo, 197 pp. 4.50m.

Transit Facilities. "The Housing Problem and Improved Locomotion." Booth, Charles. Ty. & Ry. W. 10:436 (Aug. 8, 1901).

Women. "The Housing of Working Ladies." Murray, Mary. Humanitarian 19:185 (Sept. 1901).

——. "L'Habitation de la jeune fille dans les Grandes Villes." Picot, Georges. Ref. Soc. 42:145 (July 16, 1901).

Italy.

"Street Arcades in Northern Italy." Mag. of Art 20:19 (Nov. 1896).

Taxation, Reform of. "La Riforma dei Tributi Locali." Volta, Ricardo Dalla. Rome, Fratelli Bencini, 1899. 12mo, 149 pp.

"**Oswentry, England.** Sewage Disposal at." Engng. Rec. 44:10 (July 6, 1901).

Lighting. (See also under **Municipal Control, Municipal Ownership.**)

See Berlin, Chicago, Dresden, Massachusetts, Peabody (Mass), Tunbridge Wells (Eng.), United Kingdom.

"Depreciation of Lighting and Telephone Plants." Wilkinson George. Elec. W. & E. 38:137 (July 27, 1901).

"Electric Light and Power Distribution, Some Notes on." Mead, Daniel W. Mun. Engng. 21:57, 131 (Aug. Sept., 1901).

"Gas and Hygiene." Ferrier, James. Prog. Age 19:254 (June 15, 1901).

——. "Differential Rates for Gas." von Oechelhaeuser, W. Am. G. Lt. J. 75:203, 248 (Aug. 5, 12, 1901).

——. "Purification of Gas, Further Notes on." Carpenter, S. Am. G. L. J. 75:129 (July 22, 1901).

——. "Incandescent Lighting, High and Low Pressure Gas." Sugg, William. J. Gas Lg. 77:1723 (June 25, 1901).

——. "Effect of Quality and Pressure of Gas on the Efficiency of Incandescent Gas Lighting, having Regard to Economy." Grafton, Walter. J. Gas. Lg. 77:1625 (June 25, 1901).

——. "Water Gas, Why I Adopted." Langford, William. J. Gas Lg. 77:1652 (June 18, 1901).

"Meter Accounts and Records, Prepayment." Bell, Ernest William. Am. G. Lt. J. 74:966 (June 24. 1901), Prog. Age 19:285 (July 1, 1901).

——. Graduated Tariff Meter for Consumers. "Verbrauchs-Stufenmesser und Selbstthätige Staffel-Tarifanzeiger." Kallman, ——. Elek. Zeit. (Aug. 22, 1901).

"Public Lighting by Gas and Electricity." Dibdin, W. J. San. Rec. 23:21, 61 (July 11, 25, 1901).

Street Lighting. Ellicott, Edward B. Prog. Age 19:265 (June 15, 1901); Humphrey, Henry H. J. Engng. Soc. 26:18 (Jan. 1901); Maclay, W. Mun. J. 10:540 (July 19, 1901).

——. "Electric Lighting, Street." Maclay, W. Lightning July 4, 1901.

Liverpool.

Housing. "To Clear a City of Slums." Mun. J. 10:586 (Aug. 2, 1901).

"**Llandudno [Wales]** Municipally Considered." Mun. J. 10:437 (June 14, 1901).

London, Eng.

"Borough Councils: For Better or Worse?" Mun. J. 10:539, 559, 579, 619 (July 19, 26, Aug. 2, 16, 1901).

"Building Act, The London, 1894, * * * with the Bye-laws and Regulations at Present in Force * * * ." (L. C. C. No. 535.) London, P. S. King, 1901.

"County Council, Work at the London." Mun. J, 10:471, 509, 530, 549, 569, 589 (June 21, July 5, 12, 19, 26, Aug. 2, 1901).

Government of London. "Londres, l'Administration d'une grande Ville." Nève, Joseph E. Ghent, University of Louvain, 1901. 8vo, 278 pp.

"Housing in London." Mun. J. 10:661 (Aug. 30, 1901).

——. "A Housing Trust." (Guinness). Mun. J. 10:561 (July 26, 1901).

——. "An Experiment in Working Men's Dwellings." Char. Or. R. 10:64 (Aug. 1901).

——. "Five Millions for Housing." (Co-operative Housing). Mun. J. 10:635 (Aug. 23, 1901).

——. "The Housing of the Poor Problem in the Metropolis." Kenwood, Henry. San. Rec. 27:495 (June 6, 1901).

"Parks and Open Spaces of London." Earl of Meath. Humanitarian 19:1 (July, 1901).

"Lunatic Asylum, West Ham's New." Mun. J. 10:595 (Aug. 9, 1901).

Sewerage. "The New Drainage Bye-laws for London." Dudfield, T. Orme. San. Rec. 28:155 (Aug. 22, 1901).

Streets. "List of the Streets and Places within the Administrative County of London, compiled by the Superintending Architect of the Council." (L. C. C. No. 542.) London, P. S. King, 1901. 4to, 578 pp. Cl. 10s. 6d.

Transit Facilities. "Electric Tramways in London." Engng. (Lond.) 72:55 (July 12, 1901).

——. "Electric Tramways and Lighting Installation, East Ham." Ty. & Ry. W. 10:333 (July 11, 1901).

——. "Electric Trolley Lines of London." Elecn. (N. Y.) Aug. 14, 1901.

——. "London County Council Tramways Administration." Ty. & Ry. W. 10:315 (June 13, 1901).

——. "London United Tramways." Elec. R. (Lond.) 49:89 (July 19, 1901).

——. "The London County Council and Its Tramways." Ty. & Ry. W. 10:381 (July 11, 1901).

——. "Two New Municipal Tramway Systems." Mun. J. 10:555 (July 26, 1901).

——. "Underground Railways, London." Ty. & Ry. W. 10:438 (Aug. 8, 1901).

——. "Underground Railways in London." Arch. (Lond.) (Aug. 2, 1901).

——. "Underground Railways, Report from the Joint Select Committee * * * on London." London, P. S. King & Son, 1901. 4to, 435 pp. Paper, 4s. 1d.

——. "The Electrical Equipment of the District and Metropolitan Railways." Yerkes, Charles T. Elec'n. (Lond.) (Aug. 2, 1901).

Manchester, Eng.

Tramway System. Anon. Mun. J. 10:419 (June 7, 1901), Ty. & Ry. W. 10:290 (June 13, 1901), St. Ry. J. 18:36 (July 6, 1901).

Massachusetts.

Gas Lighting. "Competition and Capitalization, as Controlled by the Massachusetts Gas Commission." Gray, John H. Q. J. E. 15:254 (Feb., 1901).

"Street Railway Legislation in Massachusetts." St. Ry. J. 18:100 (July 27, 1901).

Melbourne, Aus.

"Greater Melbourne: The Franchise Issue." Biggs, Leonard V. Melbourne Municipal Reform Leaflets No. 2, 1900. 8vo, 4pp. Free.

Montreal.

Form of Government. "Framework." McLean, Francis H. Ann. Pol. Sci. 18:359 (Sept., 1901).

"The Municipal Situation in Montreal." Ames, Herbert B. Mun. J. & E. 11:97 (Sept. 1901).

Municipal Control, Municipal Ownership.

See Berlin, Germany, New York, St. Helens, Tunbridge Wells (Eng.), United Kingdom, United States.

"Appraisal of Plants for Public Services." Hill, Nicholas S., Jr. Engng. Rec. 43:546 (June 8, 1901).

Fire Insurance, Municipal. "Les Assurances contre l'Incendie par l'Etat. Les Provinces ou les Villes en Allemagne." Alglave, P. Paris, 1901. 8vo, 20 fr.

——. "Insurance of Municipal Property." Mun. J. 10:460 (June 21, 1901).

"Franchises." Cooper, H. S. St. Ry. R. 11:364, 409 (June 15, 1901).

——. "Public Policy Concerning Franchis Values—A Problem in Taxation." Sikes, George C. J. P. E. 9:527 (Sept., 1901).

"Housing, Municipal." Mun. Reformer No. 33, p. 64 (June, 1901).

——. "A New View of the Housing of the Poor and Municipal Trading." J. Gas Lg. 78:18 (July 2, 1901).

"Municipal Ownership." Case, L. N. Mun. Engng. 21:16 (July, 1901).

——. "Le Municipalisme." Bouet, H. J. Economistes (July, 1901).

——. "Municipal Ownership of Public Utilities." Allen, Walter S. Mun. J. & E. 11:56 (Aug., 1901).

——. "Municipal Trading." Phelps, L. R. Econ. R. 11:283 (July 15, 1901).

——. "Municipal Trading Again." Mun. J. 10:426 (June 7, 1901).

——. "Public Ownership Coming." City & State 10:364 (June 6, 1901).

——. "The Argument against Municipal Ownership." Thayer, Charles F. Worcester M. 2:10 (July, 1901).

——. "The Municipal Ownership Movement." Woodruff, Clinton Rogers. World R. 1:635 (Aug. 3, 1901), Mchts. A. R. (Aug. 1901).

"Telephones, Municipal." Brocklehurst, F. Econ. J. 10:552 (Dec. 1900).

——. "An American Review of Telephony Abroad." Bethell, U. N. Elec. W. & E. 38:171 (Aug. 3, 1901).

——. "Municipal Telephones in Foreign Cities." Mun. J. & E. 11:6 (July, 1901).

"Transportation Franchises always the Property of Sovereignty." Monnett, Frank S. Arena 26:113 (Aug., 1901).

New York City.

Art. "Beautifying Columbus Circle, N. Y." Doyle, A. P. Mun. Aff. 5:722 (Sept., 1901).

Bridges. "Substructure for the Fourth East River Bridge, New York City." Engng. N. 45:453 (June 20, 1901).

"Charities Chapter of the Greater New York Charter." Folks, Homer. Am. J. Sociol. 7:262 (Sept., 1901).

Council. "Inside the Machine: Two Years in the Board of Aldermen, 1898, 1899." Sherman, P. Tecumseh. New York, Cooke and Fry, 1901. 12mo, 100 pp. Paper 50 cents.

Elections. "J. Devlin—Boss." Williams, Francis Churchill. Boston, Lothrop Pub. Co., 1901. 12mo, 520 pp. Cl. $1.50.

——. "Municipal Betterment in the New York City Election." Warner, John DeWitt. Mun. Aff. 5:625 (Sept., 1901).

Finance. "Amend the Debt Limit." Coler, Bird S. Mun. Aff. 5:664 (Sept., 1901).

Municipal Operation. "How to Save New York. A Program of Progress." Martin, John. New York, Civic Council, 1901. 12mo, 51 pp. Paper, 10c.

——. "A Constructive Policy: What the Low Administration Should Do." Martin, John. Mun. Aff. 5:641 (Sept., 1901).

Paving. "Report of an Investigation of Asphalt Paving. * * 1895, 1896 and 1897." Hertle, John C.; Owen, Edward. New York Commissioners of Accounts, 1899. 8vo, 63 pp. Free.

"Sewer Reconstruction in New York." Engng. Rec. 44:12 (July 6, 1901).

Transit Facilities. Construction of the Manhattan Elevated Railway. "Bau-Konstruktion der Manhattan-Hochbahn in New York." von der Werra, F. M. Zeit. d. Ver. D. Ing. (June 22, 1901).

——. "Report * * Street Car License Fees and Franchise Taxes." Hertle, John C.; Owen, Edward. New York, Commissioners of Accounts, 1901. 8vo, 277 pp. Free.

——. "Section Four of the New York Rapid Transit Railway." Engng. Rec. 43:622 (June 29, 1901).

Water Supply. "A New Ruling Concerning Underground Water Rights." Engng. Rec. 43:49 (July 20, 1901).
——. "Jerome Park Reservoir." Sci. Am. 84:342 (June 1, 1901).

Oakland, Cal.

"The Valuation of the Works of the Contra Costa Water Company." Engng. Rec. 43:516 (June 1, 1901).

Paris, France.

"Art in Paris, Municipal." Robinson, Charles M. Harper's M. 103:200 (July, 1901).
——. "Artistic Decoration of the Mairies of Paris." French, A. Builder 77:455 (1899).
——. "The Mairies of Paris." French, A. Arch. Rec. 7:401 (1901).
Underground Railway. "Le Métropolitain de Paris." Dumas, A. Génie Civil. (July 20, 1901).

Parks, Playgrounds, Open Spaces, Etc.

See Chicago, Hartford, London, United Kingdom.
"Parks and Tree Planting." Kelsey, Frederick W. Mun Aff. 5:675 (Sept., 1901).
"The Location of Business Streets through Large Parks." Engng. Rec. 43:621 (June 29, 1901).

Pavements, Paving, Etc. (See also **Streets.**)

See Buffalo, Germany, New York, Wisconsin.
"Bituminous Pavements, The Development of." Warren, Fred J. Engng. Rec. 44:198 (Aug. 31, 1901), Mun. Engng. 21:164 (Sept., 1901), Mun. J. & E. 11:108 (Sept., 1901).
"Brick Pavements, Paving Brick and." March, H. J. Brick Aug., 1901.
"Earth Roads and Earth Works." Gillette, Halbert Powers. Engng. N. 46:50 (July 25, 1901).
"Street Pavements." Prior, Wright S. Worcester M. 1:339; 2:23 (June, July, 1901).
"Wooden Pavements, Popularity of Modern." Kummer, Frederic Arnold. Mun. J. & E. 11:60 (Aug., 1901).

Peabody, Mass.

"Lighting Plant in Massachusetts, Largest Street." Adams, Alton D. Mun. J. & E. 11:54 (Aug., 1901).

Pennsylvania.

"Rapid Transit Bills, Pennsylvania." St. Ry. R. 11:435 (June 15, 1901).

Philadelphia.

"City Hall in the World, The Most Magnificent." Mun. J. & E. 11:1 (July, 1901).
Corruption. "The Sad Story of Philadelphia." Nelson, Henry Loomis. Hrprs. Wkly. 45:671 (July 6, 1901).
"Street Railway Franchises, Philadelphia." Woodruff, Clinton Rogers. Am. J. Sociol. 7:216 (Sept., 1901).
——. "The Local Lesson." City & State 10:395 (June 20, 1901.)

Prostitution.

"Municipal Restriction of Vice." Fox, Norman. Mun. J. & E. 11:104 (Sept., 1901).

Rapid Transit. (See under **Transit Facilities.**)

Refuse Disposal. (See under **Garbage Disposal.**)

Rome, The Government of Cities in Ancient. "Die Selbstverwaltung der Städte im Römerreiche." Seeck Otto. Deut. Rund. 27:208 (Aug., 1901).

St. Helens, Eng.

"Municipal Milk Depots." Mun. J. 10:519 (July 12, 1901).

St. Louis, Mo.

"Conditions in St. Louis, Novel Municipal." Blair, James L. Hrprs. Wkly. 45:695 (July 13, 1901).
"Street Railway Progress in St. Louis." St. Ry. J. 18:1 (July 6, 1901).

San Francisco, Cal.

"School Situation in San Francisco." Cubberley, Elwood P. Educa. R. 21:364 (Apr., 1901).

Sanitation, Public Health, etc. (See also **Garbage Disposal, Housing, Population, Sewage Disposal, Water Supplies.**)

See Spain, United States.

"Women as Sanitary Reformers." Farquharson, (Mrs.) M. S. Mun. J. 10:601 (Aug. 9, 1901).

School Systems of Cities.

See San Francisco.

"Bibliography of Education for 1900." Wyer, J. I., Jr.; Lord, Isabel Ely. Educa. R. 21:382 (Apr., 1901).

Municipal Professional Schools. "Les Ecoles Professionnelles Municipales et les Etablissements Libres." Valleroux, Hubert. Ref. Soc. 41:967 (June 16, 1901).

Settlement Movement, College, Social and University Settlements.

"The Relation of Settlement Work to the Evils of Poverty." Stokes, J. G. Phelps. Int. J. Ethics 11:340 (Apr., 1901).

Sewage Disposal, Sewerage Systems. (See also **Sanitation and Water Supplies.**)

See Bristol, Havana, London, New York, Oswestry (Eng.), United Kingdom.

Bacterial Purification of Sewage. "L'Epuration Bactérienne des Eaux d'Egout." Richou, G. Génie Civil 39:109 (June 15, 1901).

——. "An Effective Solution of Sewage Treatment and Disposal by Chemical Tank and Bacterial Filter." Archibald, Douglas. J. San. Inst. 22:124 (July, 1901).

Biological Purification of Sewage. "De Biologische Reiniging van Afvalwater." van der Breggen, J. De Ingenieur, Aug. 3, 1901.

"Ideal Disposal of Sewage, An." Archibald, Douglas. Engng. T. Aug., 1901.

"Liernur Improved Pneumatic Sewerage Systems." Jones, J. A. Surveyor 20:223 (Aug. 23, 1901).

Purification. "Beiträge zur Abwasserklärung." Nussbaum, H. C. Gesund. Ing. May 31, 1901.

——. "Sewage Purification and Standards of Purity." Kenwood, Henry R. J. San. Inst. 22:97 (July, 1901).

"Septic Sewage Disposal Plant, A New." Wise, Colin R. Mun. Engng. 21:1 (July, 1901).

"Sewerage and Sewage Disposal." Smith, Solon C. Mun. Engng. 21:85 (Aug., 1901), Cal. Mun. 5:7 (Aug., 1901).

Socialism, Municipal. (See under **Municipal Control, Municipal Ownership.**)

"**Spain,** The Official Hygienic and Sanitary Institutions in." de Larra y Cerezo, Angel. J. San. Inst. 22:143 (July, 1901).

Special Assessments. (See Assessments, Special, under **Finance.**)

Street Lighting. (See under **Lighting.**)

Streets, Street Building, Street Cleaning, Trees in City Streets. (See also **Garbage Disposal, Parks, Paving.**)

See London.

Cleaning. "An Electric Street Sweeper." Fawcett, Waldon. Mun. Engng. 21:142 (Sept., 1901).

"Signs and Fixtures, Street." Spencer, Nelson S. Mun. Aff. 5:726 (Sept., 1901).

"Streets of Our Cities, The." Hansen, George. Cal. Mun. 4:166, 5:6 (July, Aug., 1901).

"Trees, Street." Park & Cem. 11:65, 96, 110 (June, July, Aug., 1901).

Subways for Pipes and Wires. (See **Conduits.**)

"**Syracuse,** Street Railway Evolution in." Connette, E. G. St. Ry. J. 18:22 (July 6, 1901).

Taxation, Municipal, Taxation of Franchises, etc. (See under **Finance.**)

Telephones.

See Glasgow, Tunbridge Wells (Eng.), United Kingdom.

"Depreciation of Lighting and Telephone Plants." Wilkinson, George. Elec. W. & E. 38:137 (July 27, 1901).

Transit Facilities, Street Railways, Transportation Problem in Cities. (See also **Municipal Control.**)

See Baltimore, Basel, Birkenhead, Birmingham, Boston, Buenos Ayres, Buffalo, Chicago, Dublin, Edinburgh, Germany, Glasgow, London, Manchester, Massachusetts, New York, Paris, Pennsylvania, Philadelphia, St. Louis, Syracuse, United Kingdom, United States, Vienna.

"Crossings at Grade, The Abolition of Railroad." Mun. Engng. 21:60 (Aug., 1901).

"Electric Railways." Cardew, P. J. Soc. Arts 49:641, 653, 665 (July 12, 19, 26, 1901).

——. "Kingsland Surface Contact System." Ty. & Ry. W. 10:307 (June 13, 1901).

——. "Methods of Safety for the Overhead Electric Trolley System." Manville, E. Surveyor 20:4 (July 5, 1901), Ty. & Ry. W. 10:372 (July 11, 1901).

——. "Permanent Way for Electric Tramways." Howard-Smith, W. Ty. & Ry. W. 10:365 (July 11, 1901), Surveyor 20:32 (July 12, 1901), Elec. Eng. (Lond.) 28:91 (July 19, 1901).

"Intercommunication in Large Towns." Barber, T. W. Surveyor 20:188 (Aug. 16, 1901).

"Railway Tunnels under City Streets, The Ventilation of." Engng. N. 46:24 (July 11, 1901).

Tunbridge Wells, Eng.

"Electric Lighting, Tunbridge Wells." Mun. J. 10:441 (June 14, 1901).

"Municipal Telephone, The First." Mun. J. 10:575 (Aug. 2, 1901).

Unemployed, The.

Insurance for Sickness. "Das Invalidenversicherungsgesetz vom 13 Juli, 1899." Isenbart, W.; Spielhagen, W. Berlin, C. Heymanns Verlag, 1900. 8vo, 856 pp. 16m.

Insurance against Unemployment. "L'Assicurazione contro la Disoccupazione." Matteotti, M. Turin, 1901. 8vo, 466 pp. 8m.

United Kingdom.

Finance. "Municipalities and Income Tax." Haward, H. E. Mun. J. 10:591 (Aug. 2, 1901), anon., Mun. J. 10:609 (Aug. 9, 1901).

——. "Local Taxation and the Liberal Opportunity." Trevelyan, Charles. New Liberal R. 2:172 (Sept., 1901).

Home Rule. "Central Initiative and Local Government." Mark, H. T. New Century R. (March, 1899).

Housing. "The Results of State, Municipal and Organized Private Action on the Housing of the Working Classes in London and in Other Large Cities in the U. K." Sykes, John F. J. J. R. Stat. Soc. 64:189 (June, 1901).

——. "Public Health and Housing." Sykes, John F. J. London, P. S. King, 1901. 8vo, 224 pp. Cl., 5s.

Lighting. "British Water Gas Practice." Porter, Robert. J. Gas Lg. 77:1654 (June 18, 1901).

Municipalization. "Etude sur le Socialisme Municipal Anglais." Montet, E. Paris, Rousseau, 1901. 8vo, 186 pp. 3fr.

Parks. "The Open Space Movement in England." Holmes, (Mrs.) Basil. Park & Cem. 11:91 (July, 1901).

"Sewage Disposal, Interim Report of the Royal Commission on." Engng. Rec. 44:200 (Aug. 31, 1901).

——. "Bacterial Sewage Disposal in England." Rust, C. H. Engng. Rec. 44:130 (Aug. 10, 1901).

——. "Rights as to Sewage." Barker, Algernon. J. Inst. Brit. Archts. (June 8, 1901).

——. "Treatment and Disposal of Sewage." Mun. J. 10:590 (Aug. 2, 1901).

"Telephones, Municipal." Mun. J. 10:620, 639 (Aug. 16, 23, 1901).

"Tramway and Electric Railway Legislation." Ty. & Ry. W. 10:385 (July 11, 1901).

——. "Rating of Street Tramways." Porter, J. Neville. Ty. & Ry. W. 10:419 (Aug. 8, 1901).

United States.

"Mistakes of Professional Reformers." Coler, Bird S. Ind. 53:1405 (June 20, 1901).

"Moody's Manual of Corporation Securities" (Second Number.) (Street Railways and Lighting Cos.) Moody, John, editor. New York, Moody & Co., 1901. 8vo, 1512 pp. Cl. $7.50.

"The Government of the American People." (Part II. on City Government.) Strong, Frank; Schafer, Joseph. New York, Houghton, M. & Co., 1901. 12mo, 250 pp. Cl., 65c.

"University Instruction in Municipal Government." Young, James T. Cal. Mun. 4:169 (July, 1901).

"Wanted—A Municipal Social Consciousness." Thurston, Henry W. World R. 1:464 (June 22, 1901).

Charities. "American Philanthrophy of the Nineteenth Century. Preventive Work." Lee, Joseph. Char. 6:485 (June 1, 1901).

Finance. "Federal Restraints on the Taxation of Public Service Corporations." Howe, Frederic C. Pub. Policy 5:137 (Aug. 31, 1901).

"Franchises of Telephone and Telegraph Companies, Legislative, Municipal and Congressional." (Legal.) Hamilton, G. C. Am. L. Reg. 40:336 (June, 1901), Elec. R. 39:76 (July 20, 1901), Telephony Sept., 1901.

"Garbage Disposal in the United States, The Unsatisfactory Condition of." Baker, M. N. Engng. N. 46:116 (Aug. 22, 1901).

Home Rule. "Constitutional Right of Local Self-Government of Municipalities, and Principles Applicable to Central Control." McQuillan, Eugene. Am. L. R. 35:510 (July-Aug., 1901).

Housing. "Benefits Derived from the Municipal Lodging House." Mun. J. & E. 11:24 (July, 1901).

"Sanitation in the United States, Municipal." Chapin, Charles V. Providence, R. I., Snow & Farnham, 1901. 8vo, 970 pp. Cl. $5.

Street Railways. "American Tramway Notes." Ty. & Ry. W. 10:382 (July 11, 1901).

——. "Mileage, Cars and Capitalization of Street Railway Companies in 1900." St. Ry. J. 17:646 (June 1, 1901).

Vienna.

"Municipal Lessons from Vienna and Budapest." Denicke, E. A. Mchts. Assoc. R. Vol. 6, No. 61, p. 1 (Sept. 1901).

Transit Facilities. Metropolitan Railway of Vienna. "Le Chemin de Fer Métropolitain de Vienne." Philippe, René. R. Gen. des Chem. de Fer (June, 1901).

Water Supplies of Cities. (See also **Municipal Control.**)

See Albany, Chicago, Cincinnati, Elmira, Glasgow, Gloucester, Oakland (Calf.), New York.

"Distribution, Water." Hague, Charles A. Mun. Engng. 21:32 (July, 1901).

Filter System, The Kurka Stone. Glaser's Annalen (Aug. 15, 1901).

Ground Water. "Ueber die Erschliessun Unterirdischer Quellwässer." Tschebull, A. Zeit. Ing. Arch.-Ver (June 28, 1901).

"Pollution of Public Water Supplies, Detecting and Preventing the." Watts, William. Surveyor 20:72 (July 19, 1901), Builder 81:52 (July 20, 1901), San. Rec. 28:64 (July 25, 1901).

Purification of Water by Iron. "L'Epuration des Eaux par le Fer." R. Technique (July 10, 25, 1901).

"Waste of Water." Engng. Rec. 44:5 (July 6, 1901).

Wisconsin.

"How Shall Wisconsin Streets Be Paved?" Buckley, E. R. Mun. 2:97 (Sept. 1901).

Wolverhampton.

"Housing Progress." Mun. J. 10:424 (June 7, 1901).

"**Woman's Work** in the World's Cities." Seavey, (Mrs.) Frances Copley. Mun. J. & E. 11:99 (Sept., 1901).

BIOGRAPHICAL NOTICES

OF THE

WRITERS IN MUNICIPAL AFFAIRS FOR SEPTEMBER, 1901.

JOHN DE WITT WARNER.—Born October 30, 1851, in Schuyler Co., New York. Entered Cornell the first day it opened; graduated 1872. Edited *Ithaca Daily Leader* three months; was professor of Latin, German and Elocution two years at Ithaca Academy, and two years at Albany Academy. Studied law at Albany Law School, whence graduated and was admitted to the bar June, 1876. Member of the Albany Greek Club and Albany Institute, which published his "Solar Theory of Myths." Came to New York after 1876, where has since practiced law as member of the firms, first Iselin & Warner, Warner & Frayer, and at present of Peckham, Warner & Strong. Elected to the Fifty-second Congress from the greatest manufacturing district in America, and returned to the Fifty-third Congress from a new district comprising part of his old one, and this time the wealthiest parliamentary constituency in the world. In Congress was Chairman of the House Sub-committee to investigate the sweating system. Took an active part in the repeal of the purchasing clause of the Sherman Act and Federal Election laws, and in the passing by the House of the Wilson Tariff bill, to which he secured the "free sugar" amendment. Strenuously advocated the Torrey Bankruptcy bill and opposed the Bland Seignorage bill. Secured investigation of Federal building matters in New York, which has resulted in important reforms and large appropriations for construction and repairs. In the Fifty-third Congress was the sole representative for New York state and city on the House Committee on Banking and Currency, and a leader in debate in both the Fifty-second and Fifty-third Congresses on tariff, financial and commercial matters. In the Fifty-third Congress was prominent in leading the fight for free sugar, and especially in exposing the Sugar Trust. Took a leading part in the discussion of the repeal of the ten per cent. tax on State Bank issues, and led in opposition to the Anti-option bill. Was prominent in agitation for reform in Cornell University matters, and was elected Alumni Trustee in 1882 and again in 1894, in each case for a five-year term. One of the founders of Shakespeare Club of New York City, and author of "Sound Sequence in Shakespeare" and other papers on Shakespearean subjects. A writer and speaker on tariff reform; was one of the founders of New York Reform Club; author of numerous pamphlets on tariff matters, and Tariff Reform Editor of New York *Weekly World* during campaign 1892; Chairman Reform Club's Tariff Reform Committee, 1889-1891; Chairman Reform Club's Sound Currency Committee, 1895-1896; President of the Reform Club and Chairman of its Committee on Municipal Administration, 1897. Has done extensive editorial work in connection with a number of periodicals, and has been contributor to many more, including *Die Zeit*, of Vienna; *Law Times*, of London; the *Century, Forum, Harper's Weekly* and numerous political, financial and economic periodicals.

JOHN MARTIN.—Born in Lincoln, Eng., 1864. Educated in the public schools of Lincoln, Eng.; graduated from the Borough Rd. Normal College, London, in 1884, and from the London University in 1890, with the degree of Bachelor of Science. First a teacher in the London Public Schools; afterward a lecturer at the People's Palace, East London. Elected Member of the Executive Committee of the London Fabian Society in 1893; Member of the Borough Council of Hackney, London, and Chairman of the Labor Party, 1895-'98. Came on lecturing tour to the United States for Winter of 1898-'90. Invited to return to take charge of the work of League for Political Education. Since resident in New York. Author of *State Education at Home and Abroad* (Fabian Society); *Cure for City Corruption* (Harper's Mag.); *Direct Employment vs the Contract System* (Municipal Affairs); *How London Was Saved* (Forum), etc.

BIRD S. COLER.—Born in 1868; a descendant of a Nuremburg family. At an early age was made partner in the firm of W. N. Coler & Co., his father being senior partner. Has since made a study of municipal bonds and public franchises. Was elected in 1897 as Comptroller of Greater New York, running upon the Democratic ticket. Since his inauguration has taken an active part in municipal politics, and has stood for honesty, efficiency and public interests. Has introduced many reforms in the finance department, and nearly all of the measures he has presented to the State Legislature have been enacted into law. Was generally recognized as a leading candidate for mayor in the recent election, but his independent position made him *persona non grata* to the bosses of both parties.

WILLIAM S. CRANDALL.—Has been for many years engaged in journalism, and is now editor of *Municipal Journal and Engineer*.

FREDERICK W. KELSEY.—A native of New York, and engaged from youth in the nursery business. Prepared the nursery and plant classification under which the Treasury Department is now working. Framed the New Jersey Street Tree Planting Law and originated the Essex County Park scheme, which was authorized by the New Jersey Legislature without a dissenting vote, and for which $4,000,000 have been appropriated. Is President of the New England Society of Orange, a member of the Reform Club, Municipal Art Society and other similar organizations. Has been intimately connected with many park enterprises and schemes for city improvement.

CHARLES ALBERT LOPEZ.—Born in Mexico of a distinguished family, being the grand-nephew of Gen. Marcisco Lopez, who was one of the leaders in placing the Infanta on the throne of Spain against the Carlists in 1848, and who raised the first important revolution for the freedom of Cuba. Has resided in the United States since early youth. Studied under Mr. J. Q. A. Ward, and in Ecole de Beaux Arts, and in the Atelier Falguiére. Exhibited in the Paris Salon. Was awarded in 1898 the first prize for a sun dial by the National Sculpture Society, and the first prize for a flagstaff by the Municipal Art Society. Among his principal works are a marble Statue of Mohammed in the Appellate Court Building, the East Indian Group for the Dewey Arch, Groups of Art and Science for the Grand Court of Fountains at the Pan-American Exposition, Negro Group at the Charleston Exposition, Bronze of a Seated Bacchante, "The Sprinter," and a large marble relief of "Maternity."

CHARLES MORGAN SHEAN.—Born in Brooklyn, N. Y., October, 1852. Studied at Art Students' League, 1879-1881, under J. Carroll Beckwith, and in Paris, 1881-1884, under Cabanel and Boulanger. Since return from Paris has devoted himself to stained glass and interior decoration on architectural lines. Member of the Architectural League, the National Society of Mural Painters, the National Arts Club and the Salmagundi Club.

REV. A. P. DOYLE.—Is a member of the Paulist Fathers. Born in San Francisco in 1857. Has lived in New York for many years. Takes an active interest in questions pertaining to public morality, and has been associated particularly with efforts to restrain the multiplication of saloons and to cultivate the highest type of citizenship. Has been identified with sociological work among the poor, and two years ago started the Paulist Social Settlement. His efforts to maintain the high character of the Upper West Side are matters of common knowledge, and not a little is due to his active opposition to vice that the high character of his portion of the city has been maintained. Is now the Editor of the *Catholc World Magazine*, and in charge of the literary department of the Paulist Fathers.

NELSON S. SPENCER.—Born in Connecticut, and lived there until 1872, when he came to New York. Graduated from the College of the City of New York, and was a student at the Columbia College Law School. Since 1881 has practiced law in New York city, and is a member of the firm of Stickney, Spencer & Ordway. Is a member of the Reform Club, Civil Service Reform Association, National Arts Club, Municipal Art Society and many other similar organizations. Has been recently appointed by Mayor-elect Low as one of the Civil Service Commissioners of the city.

MILO ROY MALTBIE.—(See Note in June Number.)

MUNICIPAL AFFAIRS.

VOL. V. DECEMBER, 1901. No. 4.

MUNICIPAL GOVERNMENT IN SWEDEN.

BY GUSTAF SIÖSTEEN.

Central Government Briefly Surveyed.

The central government of Sweden concerns the student of municipal conditions only indirectly. A cursory glance is sufficient.

The power is divided between the crown and parliament *(Riksdag)*, which is divided into two houses. The upper house—the senate—is chosen by the county councils *(landsting)*; the lower is elected directly by the people, but by a limited franchise which excludes the rapidly-growing industrial population.

The peasant proprietors—at present being about one-half of the total population—still hold the political power, as they did 450 years ago, when they freed the country from feudal lords and foreign oppressors. The peasants exercise this power themselves, and do not, as in other countries, delegate it to "gentlemen."

Nearly every peasant member of parliament began his public career in a parish vestry or as an executive officer of the parish, and was then promoted to the county council—thus acquiring considerable experience and knowledge of public affairs before being sent to parliament. All these bodies are under the control of the peasants, and it is therefore a very important class. In the greatest part of the country, where the gentry and the noblemen do not have many large estates, the peasant is a rather proud and independent man, living with a couple of servants on his freehold farm, where his father and grandfather lived before him. He knows how to make a bargain and carries that ability into political life. Reforms can be bought from him by granting relief to his class. Radicals rather like the peasant politicians on this account, because they are rea-

sonable when offered good terms. The members of the upper chamber—those of aristocratic tendencies and the country gentry—also have class interests, but as they have been relieved by indirect taxation as much as possible from all burdens, no reforms can be secured from them.

The peasant members have a dislike for the "gentlemen." They have a certain contempt for the theoretical reasoning of the "gentlemen" and a certain mistrust of their judgment. The peasant never puts on an evening dress, even though he be a deputy speaker of the house with high decorations, and attends the king's balls dressed in a respectable church-going coat, slyly observing the vanity of the world. He has voted money freely for the development of facilities for communication. The small national debt has been incurred solely for that purpose. The peasant party in the lower chamber has strictly adhered to the rule that not a penny shall be borrowed for military or other unproductive purposes.

The administration officials of Sweden play a more important part than those of England or America. As in Germany, they also occupy the most prominent positions in social life. All important officials must possess high university degrees. Several centuries ago a great part of the local administration passed over to state officials, and in 1634 a centralized administrative system was introduced which largely prevails still. The officers are appointed and promoted by the king according to elaborate rules, which cannot be departed from. As a rule, officials can be removed only after finding by a court of law, but they are subject to a many-sided control, judicial and administrative. They must not obey political orders and do not influence elections. A great many sit in parliament and very often belong to the opposition, even if they are high officials on full pay who can be dismissed without formalities. Public opinion would be shocked, however, were they dismissed on that account, and it seldom happens.

County Government.

The central government controls local affairs through the county governments, first organized in 1634. Sweden, with a population of five millions, of whom only one million live in towns, is divided into twenty-five counties, under county governors nominated by the king as his representatives. There is a strong division between town and country, and even small "boroughs" with less than

1,000 inhabitants have separate judicial and administrative systems. The counties (exclusive of the boroughs) are subdivided into bailiffs' and sub-bailiffs' districts for the enforcement of the law. For other purposes the counties are divided in other ways. For instance, the state medical officers look after the sanitation of their districts, giving advice to the elected authorities.

The county council *(landsting)* is the representative assembly of the county; the few boroughs with more than 25,000 inhabitants do not elect representatives in the county councils. The council is an institution which dates back only to the sixties, and does not have very vast powers. It provides elementary education for the deaf and dumb and other abnormal children, maintains certain other schools, especially "people's high schools"—an interesting Scandinavian institution, teaching communal administration, etc.—erects bridges, builds hospitals, promotes agriculture and forest cultivation, means of communication, sanitation, etc. Finally, it elects the members of the upper house of the *Riksdag*. The county councils were not intended to be strong self-governing bodies, but only to deliberate and to levy taxes. All their decisions can be vetoed by the county governor. Their members are paid 6 *kronor* ($1.50) per day of attendance, while the members of all other local bodies are not paid at all. They are elected for two years.

The Hundred.

The old administrative unit of the hundred has now almost passed into decay. It is the area for the maintenance of roads, for parliamentary elections, and two or three hundreds form the circuit of the county judges for both civil and criminal matters.

The Parish.

The chief unit for local self-government within the counties is the parish. At the end of the middle ages, parish self-government was mixed up, as in England, with the administration of the church, and even now civil and ecclesiastical affairs are not wholly separated. There are different elective assembles for civil and church business, but the inhabitants in vestry assembled, with the clergymen as chairmen, decide both school and church affairs, there being a church board and a school board as executive authorities. This applies to towns as well as to county districts, except in the largest two towns—Stockholm and Gothenburg. There the town councils elect the school board.

The civil deliberating assembly of the parish, for other than school matters, is the parish meeting, composed of all the inhabitants, male and female, whose votes are recorded in proportion to the direct state tax they pay. (The communal income and property tax is assessed according to the state tax, and collected at the same time.) Votes are given even upon property of dead persons, if it be assessed, and upon that of corporations. Imagine the situation in a small parish, which has a large factory or large estates. After several hard struggles with the upper house of parliament, whose composition is influenced by the communal vote, a limit has been fixed. Now no one can have more than 5,000 votes or more than one tenth of the voting strength of the parish. But it is not so bad as it seems. An income of $500 gives 180 votes, and the votes based upon agricultural property are doubled. Therefore, in most of the country parishes the peasants have control.

The parish meeting can confer its powers upon a parish council, but it is not generally done. The executive of the parish meeting is the parish commission, consisting of from three to eleven members, the chairman of the meeting and the clergyman or his representative. It makes the assessment and administers laws regarding the poor, the public security and good order. It has the assistance of state officials when necessary. It elects policemen, who assist the sub-bailiffs.

The powers of the parish are vast, like those of the town. Each must administer the laws of the country regarding the poor, the schools, the methods of taxation, etc., and the central authorities can force them to make adequate provision in their budgets. Otherwise they have a free hand and can do nearly everything they like. They must get the permission of the government to borrow money when the period of repayment extends over more than two years, and of the county governor for expenses covered by local taxes during more than five years. The considerable income from licenses can be quite freely disposed of for any purpose. The parish administrative bodies are, like those of the town, elected for four years.

Town Councils.

While in the parishes there are parish meetings consisting of hundreds, and even thousands of ratepayers—a very primitive de-

mocracy—the government of the towns or boroughs *(städer)* is more modern. The town councils consist of from twenty to sixty members—Stockholm has one hundred. They are elected upon a somewhat more liberal system than in parish government. No one can have more than 100 votes, which is the voting strength of $2,500 income.

Before 1862, when the town councils were established, the administration was carried on by a magistracy, consisting of a burgomaster and aldermen, elected for life, as executive, and the inhabitants in vestry assembled as a deliberating and tax-granting body. The communal laws still say that "the magistracy are the government of the town," but in fact they have very little to do with the actual administration. The magistrates, being, as before 1862, the judges of the towns, are now almost wholly state officials, but are still elected—the aldermen directly, the burgomaster (only two towns have more than one) indirectly. From among the competent burgomaster candidates, the council chooses three and the king then selects one.

The magistracy are responsible for the execution of the laws and the decisions of the town council through its executive commissions. The magistracy appoint one or two lawyers on these commissions and also lay the yearly budget before the council, though, in fact, the finance commission of the council has prepared it. The burgomaster can take part in the deliberations of the town council, but cannot vote. If the magistracy think a decision of the council illegal, they refuse to hand it over for execution to the proper commission. If, on the council's complaint, the county governor sides with the council, the magistracy must follow the lead of the council; but if the decision is against the council, that body can appeal to the king. The chief function of the magistracy is, therefore, to see that all legal formalities are fulfilled, not to take part in the actual administration, as in Germany, or at least not with an authoritative voice.

On the other hand, the Swedish towns do not need statutory powers to engage in a new municipal undertaking, like the English and American towns, and they are really less hampered than the Frussian municipalities, though sufficiently well controlled by the central authority. The fact that the government exercises part of its controlling authority through the county governor is an addi-

tional advantage, as he is near at hand and can render a decision quickly.

Typical Cities—The Small Town.

A sketch of the administration of two towns—one small and the other large—will give a clearer understanding of the spirit of city government in Sweden than a mere digest of the laws, which, as already seen in speaking of the magistracy, may give a totally wrong impression. The factor of fundamental importance is the spirit that animates the citizens, that characterizes the administration of the laws.

The town "O" in northern Sweden has 7,000 inhabitants. It is situated on the shores of a great lake. A burgomaster and two aldermen are its magistracy and form its civil and military court. One alderman is a paid lawyer, the other an unsalaried citizen.

The council has twenty-seven members. According to profession, they are divided: Five civil servants, four shopkeepers, four master artisans, three teachers, three civil engineers, two military officers, two houseowners, one medical man, one banker, one journalist and one chemist. The town council meets once a fortnight, after advertisement in the local papers, giving notice of the business to transact. The orders are not printed, but the three local papers give information in advance about important questions. Their report of each meeting might fill about half a column of a New York paper.

The administrative commissions appointed by the town council are only four; these must, according to law, be formed in all towns. The chamber of finance administers all the property of the town, receives its incomes and makes all payments, having been duly decided upon first by the council. It enjoys a certain freedom of action to carry on the current business of the town; a code of rules, adopted by the town council and the county governor, delimits its powers. A board of guardians, a sanitary commission and a building commission are the three other bodies. Their action is regulated in general outline by statutes applicable to the whole kingdom. Each has about half a dozen members. The town engineer, being superintendent of the public works, and an expert, is usually present at the meetings of the chamber of finance and of the building commission. He has, of course, no vote, but has the right to express a dissenting opinion in the report. The

town vicar and the medical officer of health attend the meetings of the board of guardians.

Americans will probably jump to the conclusion that these administrative commissions are committees of the town council. But, curiously enough, that arrangement has not appealed to the Swedish mind, which is inclined to regard the questions coming before these commissions not as matters of policy but of expediency. The chairman of the chamber of finance and vice-chairman of the town council, answering a question in this line, denies emphatically any intention upon the part of town council to shut out from the town government any citizen who is specially qualified to sit on the administrative bodies, simply because he is not a member of the council. "It is not certain," he writes, "that the members or even the chairmen of the administrative bodies will be members of the town council. No! They are appointed freely from among the enfranchised citizens of the town. But it is usually true that a man who has shown unusual familiarity with a special branch of administration is remembered when the town councillors are elected, and that a zealous councilor is appointed to some administrative commission."

The town does very little municipal trading. A drainage system and water works have recently been arranged for at a cost of $100,000. The water is taken from the great lake and pumped into reservoirs on the heights above the town, after having been thoroughly filtered. The charges are 60 cents per room per annum, which just covers working expenses. About 70 litres (18.5 gallons) per inhabitant are used daily, though the washing is generally done in the municipal washhouse on the lake.

The sewage is drained into the lake, but nearer to the outlet than the intake of the water works. As generally in Sweden, earth closets are used, and the fœcal matter is used by the neighboring farmers as fertilizer. They remove it without expense to the house owners.

The borough council owns shares in a private bath house, which it took to further its erection. The town is lighted with electricity, supplied by a private company from a cataract many miles away, but the town council has begun proceedings to take over the lighting itself.

In addition to the elementary schools, the town maintains a

small lecturing institute and a school for manual training (sloyd), besides partly maintaining a secondary school for girls. The secondary school for boys, for the county, is situated in the town, but maintained by the state, though the council provides land for the buildings and lodging for the head master. The state as yet only poorly endows secondary schools for girls, and the council here, as in other towns, has had to assist. The higher schools for girls exact fees from the pupils, but the boys' schools are free.

On a farm near the town, the council has built a workhouse, where the stronger inmates can contribute to their support by farm work.

The only other services I need mention of this rather ordinary little town are the combination of the fire brigade with the police; most small Swedish towns have adopted such a system, which works very well.

The budget amounts to $50,000 a year—about $7 per capita. Of this $8,500 comes from the licensed liquor company (formed according to the Gothenburg system). Small sums are derived from taxes on shipping and on dogs—the yield from the latter being devoted to tree-planting in streets and open spaces and parks. The remainder—the major portion—is derived from the income and property tax of 5 per cent.

Lastly, as to the position of the burgomaster, my correspondent writes that it depends entirely on his personality. He may be the leading man, but the position may be occupied by any member of the town council. That view holds good for Sweden generally.

The City of Gothenburg—The Town Council.

Let us now pay a visit to the second town of Sweden, Gothenburg, a busy shipping and commercial town of 130,000 inhabitants.

The town council consists of 60 members. Taking a seat in the gallery at one of its weekly or fortnightly meetings, we find there only two or three auditors. The explanation is not a lack of interest among the ratepayers, but the local papers give very complete reports of the proceedings. If we ask any one to give us information about the different parties in the council, he will stare at us in amazement and tell us that he never heard of parties in local assemblies. Pressed further as to the recruiting of the council, he will own that the trades people look after the mercantile inter-

LIBRARY OF THE UNIVERSITY

ests of the town, being always represented in the council. Matters of policy are never discussed at the elections, except that everybody is then a warm advocate of "retrenchment," but no one explains how he will retrench.

The outgoing councillors advertise a meeting some weeks before the election, and there the discussion centers round the question: Who are the ablest persons and most interested in local affairs of those professions and classes which are not now adequately represented in the council? The Clerks' Union, the Technical Society, the Ship Captains' Union, the Central Committee of the Sporting Clubs, the Elementary Teachers' Union, etc., complain at this meeting that their interests need representation, and if any one can make out a good case, it can, perhaps, elect its man at the following election. The papers of the town profess impartiality for the political opinions of the candidates, and the political organizations are contented with advertising under "many electors" that Mr. ——— is the worthiest candidate, giving as a reason not that he is liberal or conservative, but that he is a friend of retrenchment, or that he adds to the technical or business capacity of the council. The socialistic trade unions can, under the present voting system, get only radical sympathizers on the council; upon labor problems, however, their interests are safeguarded by the appointment of one of their leaders on special committees. As in all Swedish elections, candidates for the council incur no expenses. They would disgrace themselves if they did, and at the pre-election meeting, the candidates take care to cover the cost of hiring the hall by a collection at the exit. Canvassing is unknown.

The deliberations of the council are extremely calm. In Sweden one does not catch the speaker's eye, but "asks for the word," and is sure to have it in turn. The chairman is armed with a gavel, and his decisions are valid only after he has rapped upon the table. In the council, one hears no cheering, no laughter, no interjections. One must remember that he is in an icy country, where only one member of parliament has been called to order in forty years.

Municipal Activities.

The standing commissions, which make up the executive authority of the councils, are, of course, numerous in Gothenburg. Seventeen commissions are wholly under the control of the council;

the magistracy appoint one or two of their number on each, and provide them with secretaries from among the staff of young lawyers who have entered the service of the town, and who will, as a rule, in due course, become members of the magistracy. The names of these commissions are: the chamber of finance, the harbor board, the highways committee, the water board, the parks committee, the school board, the board of guardians, the board of health, the committees for the chief hospital, for the suburban hospital, for the hospital for infectious diseases, for the child-birth home, for the athletic hall (used for popular festivities), for disposal of refuse and street cleaning, for the gas works, for the markets and for the tramways.

The chairmen of these bodies are mostly members of the council, but three or four have chosen as chairmen the members appointed by the magistracy. The vice-burgomaster, who is a financial expert, is appointed by the council to the chairmanship of the chamber of finance, and he is at present elected vice-chairman of the important harbor board, which is presided over by the chairman of the town council. Some chairmen are not members either of the council or of the magistracy. For instance, the county governor is chairman of the commission for the town museum, and a professor at the university is chairman of the town library commission.

The last-named commissions were not enumerated above, because they are attached to institutions that were founded by private enterprise, with a philanthropic aim, and afterwards taken over by public or semi-public bodies. There are scores of such institutions in Gothenburg. The town council exercises a preponderating control over some by electing the majority of the board and by laying down the general line of policy. There are others—private charities—which the council controls only through its audit. A good instance of these joint boards is the town libraries commission, with nine members, of whom five are elected by the council, one by the magistracy, and two by the directors of the university, while the chief librarian is ex-officio a member.

The salaried expert of the chief commissions is never a member, as in Germany, but a subordinate, as in England and the United States generally.

Public and Private Co-operation.

The characteristic feature of Swedish municipal government

seems to me to be this decentralization of the town administration (together with the intermixture of local and state functions, on which I can not enlarge here). The administration is not confined to the town council room. Any citizen can take part in some work in which he is interested, even if he has not the time to fulfill the more important functions. In fact, all citizens of standing sit on one of the numerous public or semi-public bodies.

Another important feature is that private institutions of public utility by imperceptible steps can be converted into municipal institutions. Public-spirited citizens, who wish to start some institution, the utility of which is not at once seen by the ordinary ratepayer, may make a modest beginning with funds collected among the wealthy. If it works well, the papers call it to the attention of the public, and the town council gives a small annual grant, subject to certain conditions of control. If the institution grows, and its beneficial effects become clear to everybody, it becomes a public institution.

In other countries such a change is not always easy. The founders may be in love with their work, and refuse to hand it over to the town council, which would put some of its own members in control (not to betray the ratepayers). In Sweden, the founders are sure to be elected by the council, and it is difficult to see why they should not be, as they probably are the very best administrators that could be found.

The famous Gothenburg licensing system is founded somewhat upon these lines. This interesting system originated in 1865, when the municipal council, upon the suggestion of the editor of the Gothenburg *Chronicle*, appointed a committee to inquire into the extent and causes of pauperism. The committee reported that the excessive consumption of brandy by the poor was the principal cause of the city's pauperism and other evils, and suggested that the council take advantage of a provision of law, not hitherto made use of, and hand over to a company, composed of a score of highly respected business firms and private individuals, the licenses for the bar sale of brandy. The licenses had hitherto been sold to the highest bidder. The shareholders in the company were to receive no profits from the business other than the usual rate of interest on their investment, and the enterprise was to be conducted *not for the sake of profit, but solely for the good of the working classes.* The mu-

nicipal council approved of this recommendation, and in August, 1865, the company began operations with the control of 36 licenses. Ten years later the whole retail trade in spirits passed into its hands. The net profits of the business are divided among the city, the agricultural society and the state, the city receiving the lion's share. This system has been imitated by a large majority of Swedish and Norwegian towns. It should be noted that the company has no control over the sale of malt liquors, and that, even for traffic in spirits, it grants a considerable number of sub-licenses to retailers who cater to the more wealthy classes of the population. The company system has aimed from the beginning to discourage the consumption of spirits by the poor.

Among other great institutions, formerly more or less private, but now under public control, may be mentioned the museum, the popular library, the great industrial school with over 1,000 pupils, the workmen's lecturing institute, and the home for aged poor. The town council also assists many charitable societies by giving them annual grants and exercising control. For instance, it helps to send hundreds of poor school children to the country and the seaside during summer.

A remarkable instance is the great railway which carries the mining products of central Sweden to the port of Gothenburg. The town council, in order to promote the building of the railway, took some of the shares—a very common thing in Sweden—and at that time it was understood that the majority of the shares should always be in Gothenburg. But, in the course of time, the shares went to Stockholm, and the railway was mismanaged from the Gothenburg point of view. Some months ago several wealthy Gothenburg merchants and leading members of the town council acquired the majority of the shares, founded a company for administering them and offered at cost price the majority of the shares in that company to the council. With a little more than a fourth part of the total number of shares, the council would thus be able to control the whole railway. But on account of some extremely distasteful company jobbings elsewhere in the country—the Swedes are not yet accustomed to such things—the central government has refused to permit the formation of the company. The council has now to drop the plan or to take over all the shares, in which latter case the administration of one of the largest railways in

Sweden will be transferred to the town council.

Municipal Socialism.

Gothenburg not only manages its own gas plant, water works, tramways and markets, but also constructs nearly all public works through its own staff of engineers and workmen. Not less than 1,500 workmen are on its payrolls. But the aristocratic composition of the council has naturally prevented the adoption of an enlightened labor policy. The workmen are as badly paid, housed and nourished as if they were bought by private enterprise in the cheapest market, and are certainly less efficient than they ought to be. The council has, however, adopted a pension system for its workmen, as well as for its officials, giving the former 60 per cent. of their salaries as a pension, while the officials, who are mostly well paid, receive 70 per cent.

The council has recently shown that it realizes the necessity of brightening the lives of the poorer classes. The splendid parks and boulevards are, of course, valuable, even for that purpose, but now the council has engaged in a fight against drunkenness by means of providing ennobling amusements for the working classes. It is a mistake to think that the "Gothenburg system" of licensing in itself prevents drunkenness; its founders meant to use the profit from the sale of spirits to raise the culture of the workingmen and thus draw them from the bars. But the profit little by little has gone to relieve taxation, and, furthermore, beer, which is not under the system, has of late become a national drink, and almost uncontrolled by legislation.

The council is slowly rising to the occasion. It provides excellent indoor concerts for working men and women at a nominal fee. It has adopted a plan for music in the parks and boulevards, popular amusements, dancing and sports under proper control in the big park and in specially provided places, evening visits to the museum for working men, and instruction for boys and girls in public schools.

The Finances.

The budget of Gothenburg amounted last year to over $2,000,000. A tenth part of it came from the licensed liquor company, and about the same sum from state grants (mostly to the elementary schools and the police). The income and real property tax of about 5 per cent. upon incomes above $500, with the exemp-

tion of smaller incomes, provided $1,000,000. Not more than a fifth of the burden fell upon real property.

In the preceding pages I have tried to give a brief account of Swedish municipal government. To sum up: Serious criticisms may be made on the voting system. Grants-in-aid ought to be more systematically dealt with and extended to other fields of local government. The country aristocracy possibly should be partly superseded by extending the powers of the county councils. There certainly are germs of a sound democracy in Sweden. The day seems not far off when the fast-growing industrial working class, that is strongly organized in socialistic trade unions, will democratize both parliament and the local bodies. The danger is that the bringing in of new political theories in the local bodies will drive away the wealthier classes, who have considerable administrative ability, as has happened in France. But it seems that the decentralization of the Swedish city administration will save from that danger. There is room for representatives of all shades of political opinion on the numerous semi-public and public bodies of a Swedish city.

MUNICIPAL GOVERNMENT IN THE PHILIPPINE ISLANDS.

By Carl C. Plehn.

The Old and the New Regime.

It is not in the written law that we find a full expression of the true difference between the municipal governments now being organized in the Philippines and those which existed under Spanish rule. When we compare the "Municipal Code" enacted by the present United States Philippine Commission, on January 31, 1901, with the Royal Decree of May 19, 1893 (commonly known as the "Maura Law" from the name of the then colonial minister, Antonio Maura y Montaner), the resemblances strike us more forcibly than the differences. The Maura Law was itself the result of many years of deliberation and experiment with the express purpose of reform, and the frame of government it decreed differs far more in form from that which existed before 1893 than from that which our commissioners have inaugurated.

The Municipal Code provides for the election of the administrative officers and of the council by restricted suffrage; so did the Maura Law. But under the Code the suffrage is broader. Both impose compulsory service upon persons elected to municipal office, with precisely the same exemptions. Both provide for election by plurality vote. The duties of those entrusted with authority are in many respects similar, as of course they must be since the functions of municipalities are much the same everywhere. Of the sixteen sources of revenue granted to the municipalities by the Maura Law, the Code retains fourteen unchanged, merges one of the two others in one of those retained and rejects but one, namely, that fertile source of corruption, the *corvée*. To this already formidable list, the Code adds eight more, only two of which are, however, strictly new, the others having been levied by different authorities

before. But the Code changes the emphasis by raising the land tax from an optional charge, of the nature of a special assessment, to a compulsory tax and by making that the mainstay of the revenues. Formerly many revenues were farmed out. This is now prohibited.

These resemblances are, however, more formal than real. To conclude from them that our government has not inaugurated a sweeping reform in municipal affairs would be as absurd as to identify the *teniente de sementeras* (lieutenant of fields) and the *teniente de ganados* (lieutenant of live stock) of the old regime with the fence-viewer and hog-reeve of New England and then to infer that the ancient pueblos of the Philippines were on the same model as our historic townships.

Of the more formal changes inaugurated by the Code, the most striking is the sweeping away of the time-honored office of *cabeza de barangay*,* whose ancient functions of ward headship are to be assumed by the members of the municipal council and of tax-collector by a special deputy of the provincial treasurer. At every stage of Spanish rule the *cabezas* were the main reliance of the government and the real representatives of the people.

The abolition of this institution, which dates back to a time before the Spanish occupation and which came down to us in a state of partial decay, to be sure, but still with some life and vigor, arouses in the present writer a keen regret. His feeling in this respect is much of a kind with that which he will doubtless entertain when the march of progress shall demand the destruction of the grand old walls and moats of the city of Manila. The walls are hoary with moss and the moats rank with vegetation, and together they meet none of the demands of modern utilitarianism, but nevertheless they are magnificent as historical monuments and are absolutely unique among American possessions. So, too, was the office of *cabeza de barangay*, the sole remnant of the original government of the natives that has come down to us. The family patriarch, or village headman, of the native institutions was absorbed by Legaspi into the semi-feudal government which he established with somewhat the same facility and result with which William the Conqueror transformed the institutions he found in England so as to make them conform to the feudal system of Normandy, and, although the office

*Village patriarch, the head of a group of from forty to fifty families; the Maura Law made provision for some groups of one hundred.

of *cabeza* had, during the later period of Spanish misrule, fallen somewhat into disrepute, yet it was a noble ruin, if a ruin, founded deep in the hearts of the people and possibly not unworthy of restoration and perpetuation.

Home Rule Introduced.

The fundamental difference between the two plans of municipal government is not in the framework within the municipalities but in their relation to other authorities.

The Spanish system of government in the Islands was one of absolute central control and direction. There was no definite sphere of action within which the municipality was actually independent and the appearance of independence was a mere veneer. The American system does, to be sure, provide certain central restraints, but it preserves absolutely the independence of the electors and of their chosen representatives within certain clearly-defined limits, which are broad enough to include all the strictly local interests.

The Maura Law gave the provincial governor, an appointed official, power to revise elections and legislation within the municipalities and to suspend any or all local officers. Under the Code the power of suspension alone remains and that is vested in the central government only. It can be exercised solely in the event of certain clearly-defined offenses and then only after a proper hearing or due process of law.

But over and above this very extensive power of the provincial governors to interfere in local affairs was the power and influence of the ever-present parish priest. Church and state were one, and the priest was a regular agent of the central government. His labors on behalf of the central authorities began with the very election of the council which, as the Maura Law directs, was to be made by the resident electors with the assistance of the *devoto ó reverendo cura párroco.* No act of the council was legal which was not countersigned by him, no appointments or contracts could be made, taxes levied or collected, or money expended without his approval, and no reports even could be rendered which were not signed by him as *intervenor.* He inspected the schools and prisons and his *visé* was upon all court and legal documents. In short, there was not a single act of the local authorities in which he did not play a part. He

LIBRARY OF THE UNIVERSITY OF CALIFORNIA

was the representative of the central authorities to instruct and guide the people in the performance of their civil duties.

The only feature of this elaborate system of supervision which the commission has retained is in matters financial. All the revenues from whatever source are to be collected by the provincial treasurers through their deputies, and those belonging to the municipalities paid over to the municipal treasurers. It is assumed that it will be necessary to appoint continentals rather than islanders to the posts of provincial treasurers and that in this way there will be an efficient supervision of the conduct of municipal affairs which will prevent fraud and waste. The provincial treasurers are also to audit the accounts of the municipalities.

In general the people will be left free to manage their own affairs and will thus be afforded the best possible opportunity to demonstrate their capacity for self-government and at the same time have an opportunity to learn both the advantages and the difficulties of free institutions.

Framework of Government.

The Municipal Code establishes the framework of government for all municipalities in the Islands excepting the City of Manila, for which a special charter has been enacted. Under the Code's provisions, any group of inhabitants from a village of 2,000 upwards may be organized into a *pueblo*.* Provision is made for the needs of the larger municipalities by granting them a larger number of councillors. There are four classes of pueblos according to size.

The government of each municipality is to be vested in a president, a vice president and a municipal council, of from eight to eighteen members, according to the size of the town, all being elected by direct vote. The electors are male residents of three classes: (a) persons who have held office prior to August 13, 1898 (the date of the surrender of Manila), (b) owners of real property to the value of 500 pesos, or who pay annually 30 pesos or more in taxes, (3) those who speak, read or write English or Spanish. The Maura Law granted suffrage to two classes only, the first was the same as the first above, and the second included those who paid 50 pesos on account of the income tax, that is, those who enjoyed an

*Under the Maura Law the smallest pueblo permitted was one which paid 1,000 poll taxes, *cedulas*, which at the customary estimate of two poll taxes for each family of six persons would make the lower limit 3,000 inhabitants.

income of 1,000 pesos per annum. The electors under the older law were designated as *principalia*, and they chose the town council of twelve, who in turn elected the *tribunal*, consisting of the petty governor, or town captain, and his four lieutenants.

Eligibility to office is also greatly extended and now includes any qualified elector at least twenty-six years of age who can speak, read and write either Spanish, English or any local dialect. The Spanish law limited eligibility to natives and Chinese-*mestizos* (half-castes), thus excluding Chinese, Europeans, European half-castes and other non-indigenous races, all of whom are now eligible unless they are subjects of some foreign power.

The provisions of the Code as to the methods of holding elections, secret balloting and the like are closely modeled upon the provisions of our best American city charters and no description of them is necessary.

Under the Spanish regime the members of the municipal tribunal and of the council of twelve were unpaid, and service of those elected was compulsory unless the nominee could show as cause for being excused that he was over sixty years of age, was physically incompetent or had already served three terms of four years in a similar office. The captain was, however, allowed a secretary. The Code provides salaries for the president and for a municipal secretary and a municipal treasurer, both to be appointed by the president by and with the consent of the council. These salaries range from 600 to 1,200 pesos for the presidents, 300 to 600 pesos for the secretaries and 300 to 800 pesos for the treasurers, according to the size of the municipalities. The commission has perpetuated the feature of compulsory service, under penalty of six months imprisonment, but lessens the number of terms of such compulsory service to two. As to the wisdom or necessity of this provision the future will teach us much. It is well to bear in mind that it is not safe to assume that office-seekers are numerous among a people who are not of Teutonic stock.

Taxation.

Although, as stated above, the Code retains all but one of the old sources of revenue permitted under the Maura Law, yet the main reliance for the means to meet the increased expense of the pueblos is to be placed on the tax on real estate. This is, for the Philippines, a new and thoroughly revolutionary measure. The

settled policy of the Spanish government, followed with scarcely a break throughout its entire history in the Islands, was to foster agriculture, not only by the entire exemption of the land from taxation, but by special exemptions from insular taxes granted to persons engaged in cultivating the soil, the exemption of agricultural machinery from customs duties and by various bonuses. There are but few of the more important royal decrees or royal orders relating to taxation which do not in some form or other give evidence of this policy. This was part of the general policy of exploiting the Islands for the benefit of Spanish commerce. The resources of the Islands were mainly agricultural and in this line of development lay the best opportunity to build up a market for Spanish wares. But far more potent than the best of economic reasons in establishing and maintaining this policy was the political influence of the Friars, who, as the largest landholders, were especially interested in and benefited by this exemption.

An apparent exception to this policy is found in the Maura Law which permitted any municipality to levy a tax on rural property. This is the tax referred to in the report of the Philippine Commission of 1899 as "the land tax." The natural inference from that report is that the land tax was old and widely enforced, although it is not so stated. As a matter of fact, this tax was first introduced by the Maura Law in 1893; it was optional with each municipality whether it should be imposed or not; the wisdom of its introduction was from the start generally questioned; and it was only rarely and irregularly resorted to. A careful examination of the provisions of the Maura Law leads, moreover, to the conclusion that this was no true tax in the narrower sense, but a species of special assessment, like that for street improvements in this country. It was to be separate in assessment, collection and accounting from all other revenues and could be imposed solely for public works, to which purposes its yield was to be strictly devoted. It was distinctly declared to be no part of the municipal fund *(haber municipal)*, into which the other revenues flowed, and from which the regular expenses of government were to be met. So this older tax does not detract in the least from the novelty in the Islands of the real estate tax.

The tax on real estate is to be ad-valorem, at not less than ¼ of 1 per cent., which must be imposed by the municipal authorities for

schools, nor more than ½ of 1 per cent. for all municipal purposes. The provisions for assessment, which is to be made by an assessment board composed of the president of each municipality, the municipal treasurer and a specially appointed deputy of the provincial treasurer, are very similar to the provisions of the tax laws in our continental states. Although this assessment, made by the local authorities, is to be the basis of taxation for the support of the provincial government, no provision has been made for equalization.

Two Leading Innovations.

Two of the provisions of the Code loom into special prominence, and, like all innovations, are more or less problematical. These are the elective system and the real estate tax.

From the experience of the past three years, there is abundant evidence that the popular franchise in Filipino towns will result in the selection of officials competent so far as knowledge and administrative ability go, although it may be a generation or two before they rise to a very high standard of political honesty. But the great question to be solved in connection with any experiment with a popular elective system among an oriental race or a people of any race which has not enjoyed such franchise before, is whether the minority will be good losers, or will be inclined to resort to violence to enforce their opinions. In the same way there is danger that the majority will be tyrannical in the exercise of their powers. Against the latter danger a strong system of courts will provide an adequate safeguard. The prevailing opinion seems to be that success is assured and that the oriental is not especially jealous of his political rights. If not too much governed and especially not too much taxed, it is probable that he will be well content to let well enough alone.

The transplanting of our real estate tax to this new soil is probably the more serious experiment. Governor Taft in the report of the present commission to the President of the United States, dated Manila, November 30, 1900, says of it: "It is reasonably certain that at the outset there will be more or less opposition to this tax." This anticipated opposition was revealed very forcibly in the public discussion of the new charter of Manila which introduced a similar provision. Any new direct tax naturally creates opposition and it is usually supposed to be the part of political wisdom to rely on indirect taxes until the government is sure of the

cordial support of the people. The proposed tax, if the full rates allowed to the municipalities and to the provinces are levied, will be more than twice as heavy as the highest direct tax imposed by the Spanish.

The valuation of the property for the assessment of this tax will present many grave difficulties of administration. The members of the Board of Assessment are required to take oath that they will "appraise all real property * * * * * at its true value in money." But it is doubtful whether this is at all possible in the absence of known or ascertainable market values. With the exception of Manila and of the country in its immediate vicinity lands rarely change hands. In most parts of the Islands they never do so in a manner which will reveal their true value in money or afford any basis for a fair valuation. Furthermore, there are no proper surveys of the land upon which the assessment can be based. The conditions do not favor so advanced a form of the land tax as is contemplated. Possibly if this tax is to be perpetuated it will be found necessary to resort to some of the older or more primitive forms of land taxation; such, for example, as a system of fixed charges per acre, or other unit of area, with differing rates according to the nature of the crops and of the soil.

Charter of Manila.

The charter of the City of Manila was enacted by the commission July 31, 1901, just six months after the enactment of the general Code. The government which it provides differs materially from that provided for the other municipalities, all the officers being appointed, none elected by the people. It is modeled in a very general way upon the government of the city of Washington. The original draft of the charter, upon which, however, the commission made a large number of amendments, was prepared under the direction of General Davis, who succeeded General Bell as provost marshal of the city, and it shows very clearly its military origin.

The government of the city is vested in a municipal board of three members appointed by the civil governor of the Islands, by and with the consent of the commission. This board exercises the usual legislative powers of a city council and administers the various affairs of the city through five heads of departments, namely: (1) engineering and public-works, (2) police, (3) law, (4) fire and building inspection, (5) assessments and collections.

There is an advisory board, consisting of one representative from each of the eleven districts, appointed by the civil governor. This board has the power to make recommendations only, but it is obligatory upon the municipal board to seek and obtain the recommendations of the advisory board on all matters of importance. There is also a special school board of six members.

The municipal board is allowed a secretary and a disbursing officer, but the city funds are deposited with the insular treasurer. The commission makes the appropriations on estimates submitted by the municipal board. The accounts are audited as if they were insular accounts. The insular board of health is to care for the health of the city. The city is divided into two judicial districts, for each of which there is a municipal court to hear criminal cases. In addition there are two justices of peace and two auxiliary justices. That part of the old Spanish income tax which fell upon the rentals of city real estate is abolished and a general ad-valorem tax on all real estate is imposed. The commission has already fixed the rates of this tax for each of the next three years at 1 per cent. for 1901, 1½ per cent. for 1902 and 2 per cent. for 1903. All taxes are assessed and collected by the city assessor and collector. But the municipal board is constituted a board of tax appeals to hear and decide upon complaints with reference to assessments.

The most striking feature of the charter is the total absence of any elective features. The people of the city are to be allowed no voice in the selection of their officials. The reasons for this are to be found in the fact that Manila is the seat of the insular government. The civil governor and the commission are virtually to rule the city. That this will insure a government of the highest order is certain. The government of Manila under military rule, and especially under the provost marshals, Generals Bell and Davis, was remarkably efficient. Law and order were well maintained, the city was clean and the sanitary conditions excellent, public works and street improvements were prosecuted with vigor, and the resources of the city husbanded with economy. The charter perpetuates many of the main features of the military government, substituting the Municipal Board for the provost marshal, and the civil governor and the commission for the commanding general.

MINNEAPOLIS PLAN OF DIRECT PRIMARIES.

By William Charles Hodder.

Half the battle for any political reform is decided when a practical trial of the new plan can be made. The average citizen prefers not to take chances with innovations until he is face to face with some crisis that makes it impossible to delay action longer. To him there is no reasoning so convincing as the logic of actual experience.

Provisions of the First Act.

Three years ago the legislative delegation from Hennepin County, which contains the city of Minneapolis and a few villages and townships, introduced in the Legislature without preceding agitation upon the subject a bill providing a system of direct primaries. The other members of the Legislature were not quite ready for the plan in their own districts, but they had no objection to allowing Minneapolis to demonstrate how much virtue there might be in it, and the bill was made to apply only to Hennepin County, and passed with practically no opposition.

The object of the law was to place in the hands of the voters the whole machinery for selecting the regular party nominees. To that end the primary election day, which was placed seven weeks before the general election, was made the first day of registration, and all persons who registered were entitled to vote at the primary. The polls were kept open from six in the morning to nine in the evening. Any party that had polled ten per cent. of the total vote cast at the previous election, or any party that presented a petition signed by ten per cent. of the voters, could take part in the primary, and the same privilege was accorded to independent local parties backed by a petition signed by one per cent. of the entire vote cast at the preceding election in the particular political division from which the nomination was to be made. Candidates who secured a plurality of

the votes cast by their parties at the primaries became the regular candidates of their respective parties upon the official ballot at the general election. No provision of the law prevented independent candidates from having their names placed upon the official ballot in the usual way.

The law further provided that any person might become a candidate at the primary election by appearing before the county auditor at least eleven days before the election, making affidavit that he intended in good faith to run for the office designated, filing a petition bearing the names of signers equal in number to five per cent. of the number of votes cast for that office by his party at the previous election, and paying a fee of ten dollars.

The ballots were to be prepared by the County Auditor, one for each party, and they were so printed that the order of the names of the candidates rotated to avoid giving any one the advantage of being first on the list. The primary election was to be held in the regular polling places and conducted by the regular judges and clerks. Indeed, as much of the regular election law as could be made to apply was incorporated into the provisions of the act.

Upon registering, the voter was given a bunch of ballots securely pinned together, containing one ballot for each of the parties participating. This he took to a private booth, where he selected and marked the ticket he desired to vote. Then he folded the ballots so that nothing was visible save the initials of the judges on the back, and deposited the whole bunch in the box. Thus, provision was made for absolute secrecy, not only in the choice of candidates but in the choice of parties, and all scrutiny by party or organization workers was prevented. When the votes were to be counted, the judges first unpinned and sorted each bunch of ballots, placing the marked ballot in its proper pile and throwing the rest away. If more than one ballot was marked, they counted that which had the greatest number of marks, and in case of a tie the whole vote was thrown out. Other provisions for counting were taken from the regular election law.

Workings of the Plan.

This law was tested in the fall of 1900 under the severest possible conditions. It was a presidential year, and in addition to the national, state and county campaigns, Minneapolis had a municipal contest to decide and a new charter to vote upon. But all can-

didates of the Republican and Democratic parties for offices voted for in Hennepin county only, which included all city offices in Minneapolis, secured their nominations at the primary election.

Petitions for placing candidates on the primary ballots began to appear in January, although the election was not held until September. Candidates were especially plentiful on the Republican side, as Hennepin county and Minneapolis are normally Republican. As early as April one Republican candidate for mayor had his petitions ready and before the contest closed some seventy-eight candidates were listed for places on the Republican ballot. The Democrats were not so active, possibly because a nomination was not so likely to procure an election, but several warm contests were developing when the county committee and several of the leading candidates got together and arranged a slate so that in all save the admittedly Democratic districts there should be but one candidate for each office. In this way party dissension was avoided, but the spirit of the law was nullified. In some instances this arrangement did not stick, and there were a few spirited contests on the Democratic side.

Meanwhile, as the summer drew on, the Republican campaign warmed up. Cards and posters became abundant, campaign buttons were proudly worn, advertisements in the interest of the various candidates appeared in the papers, and during the last six weeks of the campaign meetings were held in all the Republican wards for the purpose of promoting the fortunes of the various aspirants for office. Some of these gatherings were "candidates' meetings," at which all candidates who wished were invited to show themselves and to set forth what claims they thought they had upon the particular office sought. For the time being, national and state issues were quite overshadowed by the primary contests and for once "hot weather politics" excited general interest.

The participation of women in the campaign was an interesting and instructive feature. In Minneapolis women are eligible to places on the school and library boards, and they put into the field one candidate for each board on each side. Meetings were held to work up enthusiasm among the women, and later the candidates attended the meetings of their parties and were given an opportunity to present their candidacy. The woman candidate for the school board on the Democratic primary ticket secured the nomination.

Independent Voters Come Out.

The all-important result of the experiment was that out of a total registration of 43,314 in Minneapolis, 33,543 voted for mayor at the primaries, while the total mayoralty vote at the general election was 39,164. At the preceding election, the total vote for mayor was 30,826, considerably less than the vote at the primaries. Thus it appeared that the average voter, the man who had stayed away from the primaries heretofore, whether through carelessness or choice, would come out and vote when the opportunity was given him of doing something besides ratifying a prepared slate, in the arrangement of which he was a mere figure-head. The very general voting at the primary showed conclusively that the plan was feasible in a large city and if feasible, exceeding desirable, because much of the present municipal corruption is due to the failure of the rank and file of the parties to have any control over the nominations.

That the people would use wisely the new power that had been placed in their hands became apparent when the returns from two of the wards showed that two members of a combine of boodlers which had a few years before entirely dominated the city council had been defeated in their frantic endeavors to keep their hold upon the board of aldermen. Both men doubtless would have won nomination and election had they not had the whole body of their party in their respective wards to persuade, for both had shown complete mastery of the ward politician's trade. The defeat of these two men indicated that the direct primary could and would accomplish one of the things its friends had claimed.

Possible Defects.

At the same time the campaign demonstrated one of the difficulties of the direct primary system. A clever politician with a faithful personal following in a given district can do much toward ensuring success by persuading two or three respectable citizens that the good of the cause demands that they run against him. These candidates will so scatter the opposition vote that it will not be effective. When there is a second undesirable candidate with a personal following, the danger from a multiplicity of candidates becomes greater and the need for practical political sagacity more acute. Yet this danger only emphasizes the fact that the chief merit of the direct primary is not that it reforms politics but that

it throws the responsibility for bad politics upon the individual voter by making it possible for him to have his full share in the naming of candidates, thus taking away the most common excuse for political indifference.

One of the curious possibilities of the working of the new law was illustrated by the defeat of the man who had fathered the bill in the legislature. He was a candidate for renomination and his success was conceded, so that his two opponents thought they must compete with one another for the other place allotted to the district. Therefore both instructed their followers to vote for but one candidate for the purpose of swelling their individual votes and keeping the total legislative vote down. The plan worked so beautifully that both men were nominated, while the father of the bill, whose friends voted for two candidates, fell by the wayside.

This could only happen in a district that had been gerrymandered for the purpose of depriving a minority of all hope of representation. Such arrangements, especially when they include the attachment of country districts to city wards, have been made possible by convention agreements to give each portion of the combined district a share of the office-holding. Under the direct primary system, these deals cannot be carried out, for the voters will refuse to be bound by agreements that they did not make and will select the best men on the ballot irrespective of the claims of any portion of the district to representation. In such districts in Hennepin county, the city wards got all the nominations, and it is not likely that the country towns will long consent to the present method of apportioning representation in the legislature. So the direct primary bids fair to do away with this particular form of injustice to the minority.

Another evil that the direct primary will remove from our politics, and especially from municipal politics, is the balancing up of tickets to meet the demands of those compact bodies of foreigners who, by voting together and placing nationality above party, have been able to secure far more than their proportionate share of the offices. In Minneapolis the Scandinavian candidates fared very badly at the primary, possibly because the rank and file of the Republican party were glad of the chance to show their resent-

ment at the way that body of citizens had dominated the party in the past. This domination had been possible because of the ever-present likelihood of the whole Scandinavian vote going en-masse to the other side if their demands for representation were not met. When neither side is able to guarantee nominations the power of the hyphenated American bodies to dictate is gone, and when the people do the nominating there is no way of making sure of the result.

One severe criticism made upon the law, especially by the unsuccessful candidates, was that it involved too much expenditure of time, effort and money on the part of those who wanted the offices and that this fact would prevent the most desirable men from becoming candidates. It certainly does require more effort to secure a nomination than had previously been the case. Party services, closeness to the slate-makers and previous promises do not count. All candidates have to make themselves known to the men who do the voting and that means something besides slate-making and "availability." Success is difficult for the man unknown in the district, but not necessarily so to the new-comer in the political field. The results show that the man in office apparently has a large advantage, for with but few exceptions candidates for renomination are successful. Under the direct primary it may prove difficult to dislodge a good man who has once been elected to an office. This may or may not be a good thing according to one's conception of the purpose of public office holding. It also has been apparent that the candidate who was well and favorably known, whether he has been prominent in politics or not, has a decided advantage. Thus a man who had for years conducted an abstract business was nominated in 1900 for county register of deeds, and the successful candidate for county treasurer was a member of a long established real-estate firm. Neither of these men were politicians, and they would have had little success with a county convention, so that their nomination was a most emphatic vindication of the direct primary. Municipal politics will improve very rapidly when political preferment is given by the people as a reward for an honorable career and public service does not endanger the reputation that it has taken a life-time to upbuild.

The result that caused the most general criticism of the law in 1900 was the choice of candidate for mayor on the Republican side. The nominee had served twice in that capacity as a Democrat and had become notorious as an advocate of the "wide open" policy. Although he could secure no more honors from the Democratic party, he had so large a personal following that he polled over six thousand votes as an independent candidate for mayor at the previous election. Upon the adoption of the primary law, he announced his conversion to the Republican party on national issues and became a candidate for mayor. There is but little doubt that a great many of his Democratic friends and admirers, who look upon him as the friend and protector of the poor, took advantage of the provision for voting in secret to vote the Republican ticket at the primary for the purpose of helping him along. The result was the nomination of a man who could not by any means have won in a Republican convention and whose political "requiescat" had been written several years before. Of course party organization would be hard to maintain under such conditions, and there was much disappointment over the feature of the law that made this result possible; yet the friends of the reform felt that another trial should be given before it was condemned. The circumstances were peculiar. No other man in the city could have brought about the same result and besides the Democrats had no contest of their own. Indeed some of the Democratic politicians claim that the whole scheme was devised by them to kill off their mayor, whose administration had been disappointing, by defeating him for re-election.

Recent Changes.

However, when the legislature of 1901, in response to a popular demand for an extension of the direct primary system to the whole state, evolved a bill to that end the privacy feature was abolished. The new law provides that the voter must declare which party he supported at the last general election and that he shall receive the ballot of that party only. Candidates will no longer be required to file petitions but may have their names placed upon the ballot by making affidavit and paying a fee of ten dollars to the county auditor if the offices to which they aspire are voted for in one county only, or by filing affidavit with and paying a fee of twenty dollars to the secretary of state if the offices are voted for in

more than one county. Candidates for offices that pay no salary are exempt from paying a fee.

Otherwise the law is practically the same as the original Hennepin county plan. It applies to congressional, legislative, district, judicial, county and city nominations, but not to nominations for state offices nor for local offices in village and township elections. The state offices were exempted to insure the passage of the act. If the results are good with the other offices, the state offices will soon be included.

PUBLIC ART—THE TEST OF GREATNESS.

By Brooks Adams.

Month by month the conviction deepens within me that the United States has entered upon a struggle for supremacy with Europe which can only end with the defeat of one of the two contending rivals. As Cato said, *Dilenda est Carthago.* The focus of energy may fix itself on one continent or the other, but it cannot remain on both—one or the other must finally dominate; one or the other must founder. For the moment we appear to have the advantage, but we are not yet secure. We surpass our rivals in some departments of activity, but in some we lag behind, and in none more than in the domain of art. To me the most disquieting symptom of our time is that we fail to comprehend our weakness, or to appreciate our danger.

I wish it to be understood that when I speak of art I mean art in its broadest sense, and not that caprice which often passes for art. Art, I apprehend, is not a gew-gaw of the rich, or a trade in peddling bric-a-brac; art is that manifold industry which administers to the senses of an age. Evidently the objects and uses of art must vary with the century. There is an emotional art and a material or commercial art; both are good, useful, profitable, but I insist that they are equal. The commercial art stands on a parity with the emotional art, and the neglect of it is, possibly, even more dangerous. I will proceed to explain my meaning.

Art—The Attraction of Foreign Cities.

The greatest economic pitfall of our western civilization is, in my judgment, waste, and our chief item of waste is the leakage of income to Europe, through citizens who live wholly or partially abroad. These individuals live abroad because they find their senses gratified in Europe more perfectly than in the United States, because in some respects Europeans are more intelligent than Americans. Bankers estimate that Americans spend upward of $100,-

000,000 annually in foreign countries—a sum, possibly, not far from the net earnings of the United States Steel Company, after deducting the cost of the renewal of the plant. For the most part, this enormous outlay is dead loss. We have nothing to show for it. It has been absorbed by foreign railways, hotels, theatres and dressmakers. Were New York as attractive to our own people as Paris, much of this money would stay at home, and we should also attract strangers hither. In reality, New York somewhat resembles a gigantic railway junction. New York is thronged, but those who visit her are apt to come for business, and not to tarry for pleasure. The same thing is true of most American cities.

Commerce and Public Art.

If it be argued that we are too busy to attend to trifles, and that while we earn freely we can spend lavishly, I retort that such reasoning is both unintelligent and unsound. In modern trade the margin of profit tends to fall. We shall certainly be pressed harder, as we press harder on our adversaries. If we combine and consolidate our industries, so will our rivals. If we open new beds of iron and coal, has not Europe all of Asia? We should be mad to knowingly neglect waste. I insist that no partnership, no corporation and no civilization was ever permanently successful which was relatively wasteful. With your permission I will cite an example from antiquity which is, to me, conclusive.

For many centuries the Greeks and the Phoenicians struggled for commercial supremacy. At length the Greeks prevailed, and he who weighs the evidence can hardly escape the conclusion that they so prevailed because they possessed instincts which the Phoenicians lacked. Furthermore, the Greeks have been extolled for many qualities, chiefly artistic and literary; to my mind, their genius rather lay in finance and colonization. Before all else they were men of business—perhaps the most sagacious the world has ever known—and they conceived and perfected an economic system which outlasted the Phoenician oligarchies and the Roman Empire, and ended only after a life of two thousand years, in the cataclysm of the crusades.

Practical Application.

Now as the Greeks were commercial and materialistic, so they had a materialistic form of expression. I think no man conversant

with practical affairs, and at the same time familiar with the masterpieces of an emotional era, like the Middle Ages, can have strolled day by day upon the Acropolis at Athens, or mused an afternoon upon the rocks of Sunium, without recognizing the gulf which separated Pericles from St. Louis, or Phidias from the monks who built St. Denis. The Greek Temple was not an awful and mysterious shrine where an awestruck congregation bowed before the miracle which created before them their god; it was the abode of the god and not intended for a throng of worshippers. Its uses were rather external than internal. It formed part of a logical scheme of civic decoration. The Greeks were maritime; their cities usually lay upon the coast; they wished them to be visible from afar. Accordingly, upon some conspicuous point they built a temple of gleaming marble; perhaps they tinted it to enhance its brilliancy. This temple, though small, was faultless; its construction, though good, was economical. It maintained itself by its own weight; it needed few or no repairs. Once seen it could never be mistaken. It was the most refined, the most effective and the cheapest form of advertising ever devised, and its success has been commensurate with its deserts. I venture to assert that no investment ever yielded such a large return through so long a period as that made by Pericles on the Acropolis. To-day those ruins are the best asset that Greece owns, and every year Americans leave some portion of the $100,000,000 I just mentioned in the hands of the Athenians as their contribution to the tax which Greek genius still levies on the world. The same fact is true of Sicily and Paestum.

Does my estimate of Greek art seem a heresy? I pray you turn with me to the Greek coinage, for there, indeed, Hellas reigned supreme. Other races may have built as peerless fanes, have composed as noble poems, but one race alone ever conceived the Syracusan Persephone. Yet the Greeks were men of business first and artists afterward. They mined silver at Laurium and they proposed to sell it in the best markets. The Syracusans who traded with the West, where novelty and beauty were adored, might issue the Persephone, the Hiero and the Philistis, but the Athenians speculated in the Orient, and the Orientals are conservative. An Asiatic will give more for an established token than for the most exquisite device, if the device be unknown, and hence it was that Athens

never changed her trademark, but coined her archaic owls to the end. The Greeks were never emotional at a loss.

Development Should be Uniform.

I apprehend that waste is the most fatal weakness under which either a private enterprise or a civilization can labor; and waste in civilizations comes not only from mal-administration but from an ill-adjusted development. A one-sided civilization must be wasteful, because it fails to provide equally for production and for expenditure. The aim of a civilization should be to be self-sufficing. The weakness of Rome lay in her industrial incapacity. She could conquer and spend the avails of her conquests, but she could not herself provide the food and luxuries her population craved. Hence, from the outset, exchanges went against her, and it is a sombre but an incontrovertible fact that Rome fell because she could not compete in agriculture or in art with those whom she had enslaved.

Phoenicia presented an exactly opposite phenomenon. Phoenicia knew not how to spend. Usually she economized on her architecture, and few have ever cared to visit her mean and ignoble temples; but sometimes she sought to be magnificent, and then she became wasteful and vulgar. She sheathed the Temple of the Sun in Carthage with gold plates worth $1,200,000 and accomplished only its destruction. Gold is a poor building material, besides attracting robbers, and therefore, though Carthage and Corinth were both sacked with equal ferocity, the exquisite columns of Corinth still stand and earn a revenue, while the Temple of the Sun has perished utterly.

Financial Value of Art.

Take a modern example: France has been overrun, pillaged, devastated; she has had to bear the burden of the costliest war of modern times, as well as of a vast indemnity. Moreover, she has practically withdrawn from competition in some of what are supposed to be the more important industrial departments—such, for example, as iron and steel. Yet France carries her huge debt, pays for her army, and, with a stationary population, remains the richest nation of Europe. Contrast her with England. England, under the strain of a petty war with a few thousand peasants, which may have cost in two years $1,000,000,000, or the amount of the French indemnity, shows painful signs of exhaustion. The reason is plain.

England is wasteful; France is saving. France is almost self-sufficing; England relies on foreigners for food, for luxuries, for minerals, for amusements. England has also a very large non-resident population; a colony in every continental town. On the other hand, she has few artistic industries by which she can tax the world.

A generation ago, the French made an investment in the reorganization of Paris upon the basis of modern art production. The scheme adopted was comprehensive and included every sensuous gratification from the marvelous collections of the Louvre and the National Library, which are open free, to the theatres, the restaurants and the dressmakers of the boulevards and the Rue de la Paix. No man can estimate the harvest France reaps from these sources, but I think I risk little in affirming that it must equal our profits on iron and steel, and probably exceeds the net returns on English shipping, for English shipping is suffering from English waste. From the apparent earnings of English vessels, a deduction must be made for all freights paid for food imported and consumed in the kingdom which English farmers might grow, for all ores now purchased abroad which once were drawn from English mines, and for all coal exported which is burned by steamers in this service. When this deduction is made, the favorable balance dwindles; but the money travelers leave in France is net gain. Hence it is that when England seeks to borrow, her funds steadily fall, for she has now no large accumulations seeking investment, while the French, according to the "Statist," have kept without effort $400,000,000 loaned in London throughout the last summer.

Return for a moment to the Greeks, for the contemplation of that amazing people is the most instructive lesson in economics with which I am acquainted. Observe their sagacity, versatility, and resource. They, indeed, created an evenly balanced social system—a system which, for that reason, survived the Phoenician cities and the Western Empire, and only fell with the fall of Constantinople. When Corinth, for reasons which I will spare you, ceased to be a commanding port, the Greeks migrated to Alexandria, and did for Alexandria what they had previously done for Corinth and Athens. They made Alexandria not only a great commercial emporium, but the pleasantest residence within the empire. They thus eliminated waste, for natives spent their income at home, while strangers flocked to Egypt from abroad. So Athens

long after she had lost her trade and exhausted her mines lived on the income she drew from traveling Romans.

We may profitably spare an hour to ponder upon the Greeks, and it would be well for us if we could profit by their example—an example which should teach us to apply business methods to our art. We are wasteful because we are not intelligent, and because we are too dull even to learn. In our industries we have long since been taught by necessity the value of combination, concentration, and continuity of effort. We recognize the evil of waste. In art we continue dilettantes; we consume our energies and our funds in divers channels, all of which may possibly be praiseworthy, but none of which can be profitable since they lack unity and lead to no practical end. We can advance ourselves neither by ostentation nor by imitation. Our problem is to make our national life attractive, and we can solve it only by studying the instincts and the tastes of the society in which we live. Any art worth the name must be evolved by the demands of contemporary society. Consider the compass of the Greek mind. Was it sport men asked? All the world flocked to Olympia, for the Greeks had the best games. Was it beauty? What cities equaled Athens and Alexandria? Was it society? Who could compare Rome with Athens or Alexandria? Was it learning? Does a man live who has never heard of the Alexandrine Library, and the Alexandrine philosophy? What books equaled the Greek, what theatres, what wine? And yet these poets, these sculptors, actors and landscape gardeners were the most powerful of financiers and successful of speculators. Though afterward conquered and evicted from their home, they first settled at the door of their rival Tyre, and did what the Tyrians never thought of doing. They connected the Nile with the Red Sea, isolated Syria, and took the prize of wealth from all competitors.

To succeed in art, as to succeed in any serious endeavor, sagacity and continuous effort are essential, and here I submit lies the opportunity—I may say the duty—of New York. New York has possibilities equaling those of Corinth or Alexandria, and New York should teach this nation how to use greatly, the noble gifts of nature. In this task you cannot triumph by devoting to it the lees and refuse of your minds, by giving an hour here and there snatched from

graver toils. To attain your end you must treat New York gravely, as Pericles treated Athens or as Napoleon treated Paris. You must have a plan; you must pursue that plan steadfastly through long years until you reach your goal.

Even here at hand we have a model, though on a moderate scale. A century ago the national government laid out Washington upon a specific plan. Through good fortune and bad, through years of discouragement, that scheme has been followed, and Washington is fast becoming one of the beautiful cities of the earth. Also she reaps her reward. Washington is now the most fashionable winter watering-place of America, and 140 or 150 rich families might well pay the interest on $100,000,000, though I do not believe any large sum has been expended in adorning Washington, beyond the public buildings. Once more I quote the Greeks. Their triumph lay not only in building better but in building cheaper than their neighbors.

There is no reason why New York should not excel, for she has all the resources of an international metropolis. You can do far more for New York than Congress has done for Washington; you can do what the Greeks did for Alexandria—you can make her alike a financial and artistic capital. By so doing you would also aid our common country. No city has a finer site, none more wealth, more intelligence, or more energy, and New York could succeed as brilliantly in this momentous enterprise as she does in transportation, in industry, or in finance, if she would devote to it a tithe of the genius which she lavishes on railway administration or on the Stock Exchange.

ABOLITION OF GRADE CROSSINGS.

By Charles Zueblin.

The first problem of municipal transportation is to obtain access to the city. The increased traffic caused by a railway station necessitates appropriate approaches, and the exigencies of the service, as well as the protection of human life, demand the abolition of grade crossings.

Terminal Facilities.

Few American cities are properly equipped in either respect. New York City has its Grand Central Station, approached chiefly by underground and elevated tracks, thus doing away with grade crossings, but it is inadequately equipped with transportation facilities. The projected plans for the Pennsylvania and Long Island railways to reach the city by tunneling under the two rivers, the proposed entrance to the city by the Philadelphia and New York trolley system, and the subway now building, give promise of great improvement.

Philadelphia has two stations in the heart of the city, which are reached by elevated and underground systems. Its chief rival among the greater cities is St. Louis, while Providence, R. I., is superior. The new Union Railway Station of Providence is almost ideal, the great plaza in front of the station giving abundant room for all kinds of traffic, relieved as it is by the surface systems passing under the railway station. It also presents a very imposing appearance, as is appropriate to this great modern gateway of the city, the formal treatment of the foreground on the side of its chief approach being enhanced by the magnificent background formed by the State Capitol building.

The St. Louis Union Station is among the most noted of the country. Its chief rivals in point of size and convenience, perhaps, are those of Albany and Boston. The approach of the tracks in St. Louis is partially above and partially underground, with a large number of grade crossings, but St. Louis holds the palm of larger

American cities in the small number of accidents at grade crossings.

Baltimore, in contrast with its neighbor, Washington, has conveniently located railway stations, with good approaches, chiefly underground, and the formal treatment of the grounds about the stations makes them among the most attractive of any in the larger cities. Washington, on the contrary, has a network of grade crossings, some of them disfiguring its chief topographical and architectural attractions most obnoxiously, instances being where the railways cross The Mall. The Pennsylvania Railway has now undertaken the elevation of its tracks, which, while it is a means of protecting human life, will furnish an added disfigurement to the city, and is all the less justifiable since the recent experience of Philadelphia in depressing its tracks. Of all the cities of the country, Washington is the particular one in which there should have been no elevated tracks.

The Pennsylvania Railway has also elevated its tracks in Jersey City, where a good station and connecting ferry system are located. The difficult and important work of track elevation nearing completion in Pittsburg, although still leaving many crossings at grade, adds to the accomplishments of this railway. The rapidly growing population of this great urban center and the important trunk lines which converge here increase the significance of this belated enterprise. Pittsburg enjoys the advantage of protection by the location of the Baltimore and Ohio and the Lake Erie and Western tracks on its river front, but these serve to disfigure the river banks without furnishing any means of co-ordination with the shipping system.

The city of Milwaukee has excellent approaches to its railway stations, but is still afflicted with a large number of dangerous grade crossings.

Columbus, O., has made improvements of recent years which give to its union railway station an unusual importance for a city of this size. The grade crossings in the neighborhood of the station are now entirely removed by the apparent depression of the tracks, due to the raising of the level of all this part of the city, so that instead of ugly viaducts causing a depreciation of all the surrounding property, with other attendant inconveniences, the streets have all been improved, and when the district is entirely rebuilt, all evidences of the railway will be removed.

Among the important cities of the country in which no effort has been made toward co-ordination or the elimination of grade crossings are Cincinnati, Cleveland, Buffalo, Detroit, Newark, Minneapolis, Louisville, New Haven, Cambridge and Grand Rapids. Cities which have union stations which are entirely inadequate and still maintain dangerous crossings are St. Paul, Kansas City, Indianapolis, Syracuse, Toledo and Dayton.

The union stations at St. Paul and Toledo are excellent examples of the incapacity of certain railway officials to see beyond the fiscal year. In Toledo the inadequate union station is badly located, being remote from a large number of the railway stations of the city as well as from the business center. The union station of St. Paul, located appropriately enough on the river bank, is seriously cramped, its railway yards are continually congested, the street approaches are altogether inadequate, and the present effort to appropriate a part of the river by taking advantage of the stupidity of public officials, will only temporarily serve its ends, as has the effort to enlarge the station, made a few years ago. The enlargement of this St. Paul station did not serve the convenience of the companies or the public for as long a period as they were inconvenienced by its reconstruction.

Indianapolis has a conveniently located union station, which is used by all the roads entering the city, but it is reached by a large number of dangerous grade crossings. Individuals and bodies of citizens have approached the companies with a view to securing track elevation, but without success. The officials of the city have estimated that the entire elevation of tracks, including the elevation of the union station, would cost only $2,000,000. The Chicago superintendent of track elevation made a personal investigation of conditions and reported that the work could be done for $125,000 a mile, and there are only three miles of track to be elevated. The remainder of the cost would be apportioned to the elevation of the union station, which would be of advantage to the companies not only by the speed gained on the elevated tracks and the absence of damage suits, but by the enlargement of the railway station, which is beginning to be overtaxed. When the city engineer tried to open one of the streets, forty feet wide, crossing the tracks of one of the roads a few years ago, the damages claimed by the road which owns the right of way were about $12,000. This would indicate the railway's

own estimate of the advantage of having a clear right of way. The city engineer has counted on one day freight and passenger trains, cuts and shifts numbering 840. The obstinacy of the railways, as is repeatedly the case, works to their disadvantage as well as to that of the community. A general law of Massachusetts makes it imperative to remove all the grade crossings in that state.

The experience of a number of American cities in recent years in attempting to make provision for the unification of their railway stations, and convenient and dignified approaches to the city, adds new emphasis to the necessity of the most rigid public control. The carelessness and sometimes the cupidity or corruption of public officials does not result in much more benefit to the railways than to the people. A large, progressive policy on the part of the rail-

TRACK ELEVATION AT GARFIELD BOULEVARD, CHICAGO.

ways would often be mutually advantageous, but this is made impossible by the number of small officials in charge of many of them. The recent improvements effected in Boston, Chicago and Philadelphia indicate the possibilities of intelligent co-operation between municipal and railway authorities.

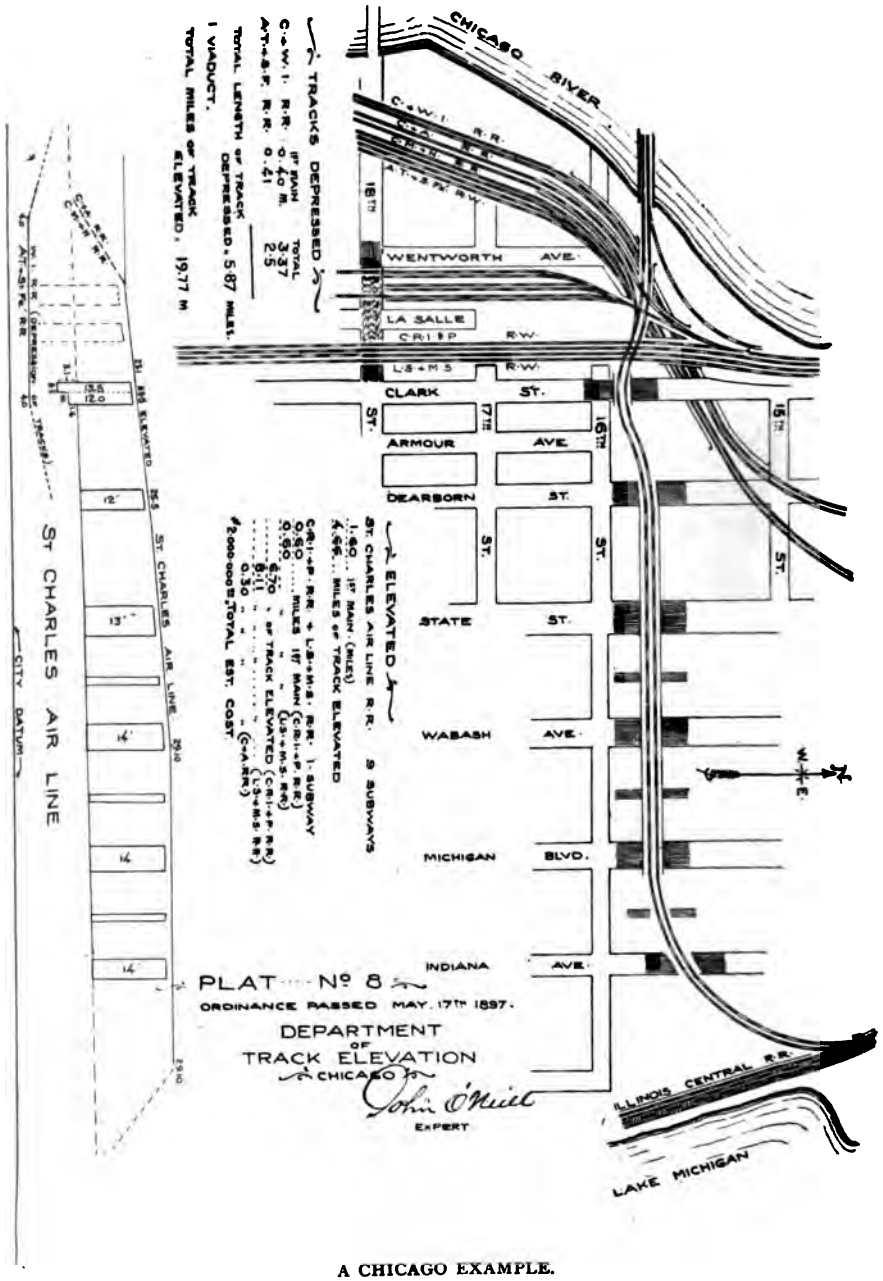
Previous Conditions in Chicago.

The most extensive work in the elimination of grade crossings in the United States has taken place in the last ten years in Chicago. Between May 23, 1892, and December 31, 1899, nearly three hundred miles of track were elevated in Chicago, and two hundred miles more have been provided for by ordinance, a considerable portion of which is in process of elevation. The largest railway center in the

country has had the most imperfect facilities of any city in the world. The inconvenience due to lack of co-ordination is quite as evident in New York, but it is not so dangerous as in Chicago. Census Bulletin 83 indicates that the deaths due to grade crossings in Chicago are considerably more than in any other city in the country, more, in fact, than the total of the seven cities next in size. Mr. Ethelbert Stewart of the Federal Labor Bureau gives the following table:

		Deaths from railroad accidents.		
City.	Population.	Males.	Females.	Totals.
New York	3,437,202	113	11	124
Philadelphia	1,293,697	50	5	55
St. Louis	575,238	8	1	9
Boston	560,892	50	2	52
Baltimore	508,957	31	6	37
Cleveland	381,768	61	7	68
Buffalo	352,219	55	4	59
San Francisco	342,782	22	4	26
Cincinnati	325,902	52	4	56
	7,778,657	442	44	486
Chicago	1,698,575	304	26	330

In addition to the menace of these bad facilities, there is the lamentable fact that after the abolition of grade crossings the railway systems of the city will still remain without unity. London has its underground railway system, Paris its *chemin de fer de ceinture*, and Berlin its *ringbahn*. The only possibility of uniting the railway systems in Chicago, on account of the city's peculiar topography, is by an underground belt line. However, in spite of these difficulties and the persistence of Chicago's bad reputation as a death center, the improvements due to track elevation are notable. These improvements began in preparation for the World's Fair with the elevation of the Illinois Central tracks, which pass for a considerable distance along the lake shore, and then run through populous residential districts. The exceptional advantages possessed by the Illinois Central Railway as the company with direct access to the World's Fair grounds made it possible for the city to compel the elevation of its tracks. Twenty-eight miles of tracks were ele-



A CHICAGO EXAMPLE.

vated, with the elimination of thirteen grade crossings at a cost of $2,000,000. This work was projected in May, 1892, and completed in time for the World's Fair.

Extent of Track Elevation.

The next important piece of elevation was provided for by ordinance of July, 1894, to elevate the tracks of the Lake Shore and Michigan Southern Railway Company, and the Chicago, Rock Island and Pacific Railway Company. Forty-three grade crossings were eliminated, and sixty miles of track were elevated, at a cost of $3,000,000. One group of subways at Sixty-third and State streets are the longest in the United States, the subway at Sixty-third street being 940 feet on the floor between portals, and that at State street 640 feet.

Then followed in succession the elevation of certain portions of the tracks of the Chicago and Northwestern Railway, the Pittsburg, Ft. Wayne and Chicago Railway, the St. Charles Air Line, the Chicago, Burlington and Quincy Railroad Company, the Chicago, Milwaukee and St. Paul, the Chicago and Alton, and other companies. Some of these projects required application of exceptional engineering skill, owing to the planless method of approaching the city. At Sixteenth and Clark streets one of the most dangerous grade crossings was eliminated, with equal gains to the railways and the city. At this point the different lines of railway crossed each other and the streets at three different angles. The result of the improvement has been that the railways now cross each other at grade at one crossing, while some of the tracks are depressed under others; and the street, paralleling one system of tracks, passes over a second and under the third. This complicated problem, involving the elevation of less than a mile of first main track in any direction, cost the combined companies two million dollars.

In the seven years—1892-1899—289.81 miles of track were elevated, at a cost of $17,405,000. There are at present several other elevation schemes under way which will add many millions to this sum. The notable feature is that the amounts already expended and those required to complete this gigantic undertaking are all assessed upon the railway companies, the only cost borne by the city being that occasionally involved in the treatment of its streets. In some instances the city has vacated streets and turned them over to the railroad companies, which have thus acquired

valuable property and reduced the cost of elevation. This vast undertaking, which has been aided by several Chicago mayors and councils, owes its inauguration and accomplishment largely to the efforts of the present superintendent, Hon. John O'Neill, who is known in Chicago as the "father of track elevation."

Aside from the immense saving to human life, one of the great gains to the community has been the time saved on the suburban lines by virtue of track elevation. In this the railway companies have been equally the gainers in increased traffic and receipts, by which they are learning the economy of track elevation. From five to twenty minutes are now saved in suburban railway journeys over the lines which are elevated. The Chicago, Burlington and Quincy trains run to Aurora, thirty-nine miles, in forty-five minutes, the

CLARK AND 16TH STREETS, CHICAGO.

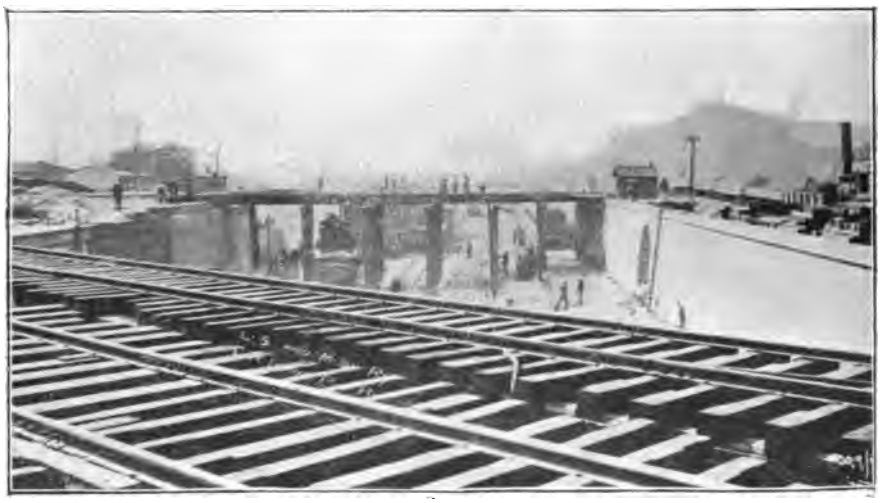
Chicago, Rock Island and Pacific trains to Joliet, forty-one miles, in fifty minutes, while the Erie and the Monon railways—whose tracks have not been elevated—require one hour to go to Hammond, twenty miles, and the Baltimore and Ohio railway fifty minutes to South Chicago, the same distance.

What Philadelphia Has Done.

Next to this work in Chicago, the most important is doubtless that done in Philadelphia. The first track elevation there was also necessitated as a result of a large exposition, the Centennial, when the Pennsylvania railway undertook to penetrate to the heart of the city from West Philadelphia by a substantial elevated structure. This was followed some years later by the Philadelphia and Reading railway carrying its lines to an equally central position, still later by

the Baltimore and Ohio railway tunneling the city for a considerable distance, and more recently by the admirable subway constructed by the city and the Philadelphia and Reading Railway Company from the location of the old station at Broad and Callowhill streets west to Fairmount Park.

The significance of this depression of tracks is best appreciated by noting that the connection which it is desired to make between the subway and the main line of the Philadelphia and Reading railway requires that trains should pass from the subway to an elevated structure within a space of two city squares. This was done partly to provide a wide street, which should furnish the magnificent transformation of a railway yard into a boulevard, and partly to



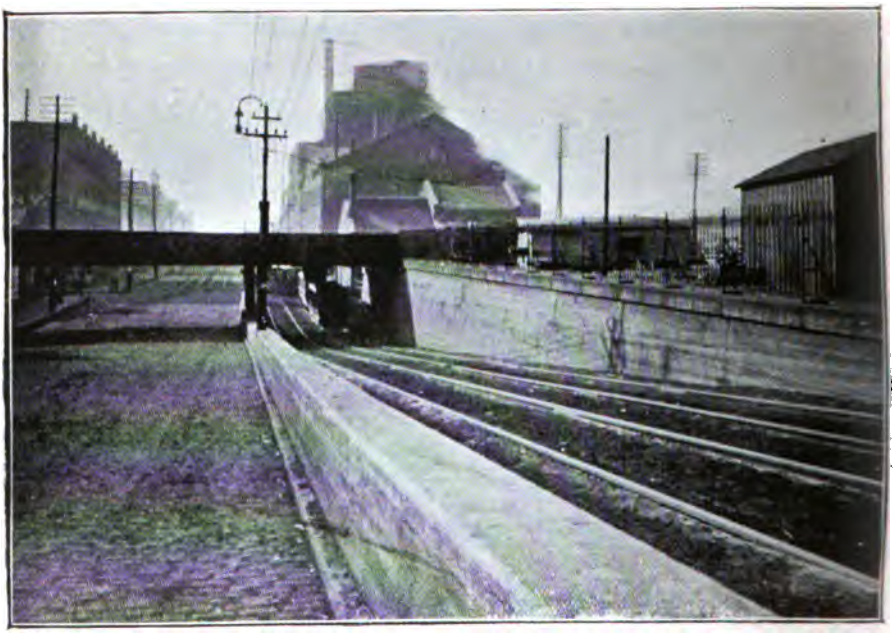
REMOVAL OF RAILROAD CROSSING, CHICAGO.

avoid having elevated tracks pass over Broad street, the great central avenue of the city. The cost of this work, including damages to property, approximates six million dollars, which was divided equally between the railway company and the city.

This work of abolishing all grade crossings on the line of Pennsylvania avenue from Thirteenth to Thirtieth streets by depressing the tracks of the Philadelphia and Reading Railway Company, commonly known as the Pennsylvania Avenue subway, was authorized by ordinance of councils, approved March 17, 1894. The elevated structure, which extends from Callowhill street, between Eleventh and Twelfth streets, to Thirteenth and Noble streets, is 959 feet in

length. The subway from Thirteenth street to a point east of Twenty-second street is 4,180 feet in length. The tunnel has a length of 2,711 feet, and the open subway to the westward is 2,150 feet long, terminating at Thirtieth street. The total length of the work is, therefore, about 10,000 feet, or nearly two miles. Throughout the subway and tunnel from Broad street there are four main tracks. In addition to these are the side tracks and tracks in the yards at Broad street and at Twentieth street.

The engineering difficulties were considerable, as the subway involved reconstruction of the sewer and water pipe system passing



STREET RAILWAYS LOWERED.

through it, and it was necessary to continue the traffic of the railway without interruption. From the beginning of the tunnel the street has been boulevarded, with openings for ventilation at intervals surrounded by a rustic masonry wall, on which vines have been planted, and around this wall a grass plat six feet wide, in which appropriate shrubs are planted, making an ornament to the driveway while furnishing a convenience to the tunnel. The avenue is 120 feet in width, with sidewalks 20 feet wide, having six feet of sod, also planted with selected trees. As the avenue approaches Fair-

mount Park it widens into a plaza opposite the Green street entrance, where the Washington monument is located. To old Philadelphians this is one of the most remarkable improvements of the city, because what was once an unsightly railway yard is now a spacious boulevard. For many years there was an intense opposition in Philadelphia to providing an appropriate roadway to Fairmount Park, this earliest of American large parks being without any adequate approach. The feeling that a boulevard was an aristocratic device has weakened in the face of the bicycle and other democratic means of conveyance, and there is no less appreciation shown today for the beauty than for the convenience of the new Pennsylvania

RAILROAD CROSSING ELEVATED, ENGLEWOOD.

avenue. At the same time Broad street, which has thuse been preserved as a great unobstructed artery, remains the pride of the city. In view of the unenviable, and unfortunately justifiable, reputation which Philadelphia enjoys as the most corrupt city in the country, it seems especially desirable to recognize the efficient services of the Bureau of Surveys, which has carried to successful completion this great engineering project, under the leadership of Mr. George S. Webster, the chief engineer.

By way of summary, it may be noted that the improvements of the last few years in American cities furnish the greatest possible

encouragement to those who wish to see a reduction of the frightful mortality at grade crossings and a multiplication of conveniences through adequate railway approaches and stations. Chicago furnishes the most striking example in the amount of work done and the millions of money expended by the railways themselves under the pressure of the public authorities and without laying any burdens on the people. It also happily illustrates the important fact that such an investment on the part of the railway is remunerative, thus leaving no excuse for railways elsewhere. The city of Philadelphia in its latest improvement, the Philadelphia and Reading subway, illustrates the possibility of removing grade crossings without disfiguring streets. If it is not possible to secure such favorable terms from the railways as has Chicago, the city perhaps may well bear half the expense to secure such a mechanical and aesthetic improvement as Philadelphia has made. The city of Providence holds first position in the convenience and beauty of its union station. Boston presents the example of a city which has appointed a commission to make an investigation of all of the transportation methods and plan for a harmonious readjustment, which has been carried to an eminently successful conclusion. The sum of these several experiences here narrated is that in planning for the future of our cities, nothing less than a complete plan should be satisfactory. This will unquestionably prove of equal advantage to the railways and the public, and the experience of several cities indicates the futility of temporizing and the necessity of looking boldly to the future and exercising that imagination which brings success to business enterprises and communities.

THE SALOON PROBLEM IN NEW YORK.

By John G. Agar.

The Horns of the Dilemma.

The conditions attending Sunday liquor traffic in New York city are probably not paralleled in any country in the world. A law is on the statute books requiring saloons to be closed on Sundays, but it is not obeyed. The present reform administration, vested with power to cause it to be obeyed, believes that the best interests of the city demand that it should not be enforced, because a majority of the citizens deem it an unjust infringement on their liberties and productive of greater evils than the law seeks to avert. This large body has expressed its opinion at the polls that it would rather have the misgovernment of Tammany with the law not enforced than the good government of the reformers with the law enforced.

On the other hand, the majority of voters in the State, inspired by an ideal incapable of attainment, in New York city at least, refuses to listen to the appeals of the citizens of this city and allow their representatives in the state legislature to change the law to meet the demands of those most concerned or to permit those most concerned to change the law to suit themselves.

As far as the city and state governments are concerned, there is a deadlock. If the present reform administration enforces the law, the result will be the overthrow of reform government in this city at the fall election in 1903, and if the present Republican state government permits the law to be changed so as to allow Sunday saloon liquor traffic, the result will be the overthrow of the Republican state government in the fall elections of 1902. The majority voters of the city will not allow the law to be enforced; the majority voters of the state will not allow the law to be changed.

Early Legislation.

This is only an acute instance of the morbid conditions which arise when natural laws are interfered with, and in seeking its remedies it may not be amiss to trace some of the conditions which have preceded it.

Prior to 1896, the principle which lay at the root of all excise laws relating to this city was the application of the will of the majority of the state to the city, by means of a general or special law operated by local agencies. The principle was considered to be one of local self-government, but its application was so controlled by the general law that it became little more than the execution of the mandates of central authority by local instruments, and was so distorted by restrictive and prohibitive features as to be repulsive to the local centre upon which it was imposed.

Sunday closing of liquor saloons in one form or another was found in all excise laws, but the collection and distribution of liquor taxes and the grant of licenses were the subjects of most variation in detail.

There were two efforts in the nineteenth century to depart from the settled policy of the state: one in 1845, to allow local option in the state outside the city and county of New York, which was never successfully applied; and the other in 1855, "an act for the prevention of intemperance, pauperism and crime." The latter was the law of the state for two years only, and attempted, with marked failure, to apply the prevailing New England doctrines of the necessity of state repression of all liquor traffic and consumption. The act of 1892, the predecessor of the present law, was the legitimate result of the previous century of folly, and is digested in a footnot.*

*Laws of 1892, Chapter 401.

Excise Commissioners.—In towns the members of boards of excise were elected by separate ballot for terms of one, two, and three years, respectively, no town official or person interested in the sale of liquor being eligible. In cities, the excise commissioners were appointed by the mayors, unless otherwise provided in the city charter.

Licenses.—A license for the term of one year might be granted only to a person over twenty-one years of age, a citizen of the United States and a resident of the State, of good moral character, who was approved by the board and beneficially interested in the business to be licensed. Six classes of licenses were in force, with fixed minimum and maximum fees:

1. Hotel license, granted to keepers of hotels or taverns having at least ten

This law contained a provision allowing local option in towns, but, as it failed to provide any procedure or means by which it could be accomplished, it became ineffective, and the will of the voters in any town became operative through the acts of the excise commissioners in granting or refusing licenses.

It is to be observed concerning this act:

1. Sunday saloon selling was absolutely prohibited.

2. Licenses were graded according to the kind of business to be carried on.

3. Licenses were to be granted by the local excise commissioners when satisfied that the applicant was a proper person to en-

---

bedrooms if in a city, or three if in a town: fee in cities, $30 to $500; in towns, $30 to $150.

2. Saloon liquor license, authorizing the sale of liquors of all kinds for consumption on or off the premises: fee in cities, $30 to $250; in towns, $30 to $150.

3. Saloon ale or beer license; fee in cities, $30 to $75; in towns, $20 to $60.

4. Storekeeper's license, to sell only for consumption off the premises: fee in cities, $30 to $250; in towns, $30 to $150.

5. Druggist's license, for sale of liquors only on a physician's written prescription: fee, $20.

6. An additional license, for sale of liquor between the hours of one and five A. M., might be granted to any person holding a license to sell for consumption on the premises, if it should "appear that public necessity requires that sale be permitted between these hours": fee, $30 to $150.

Excise Commissioners were simply authorized to issue licenses when satisfied that the applicant was a proper person to engage in the traffic, and not required to do so. When, however, a board denied an application for a hotel license, it was obligatory to file a statement of its reasons for so doing. If a court found that an application had been rejected arbitrarily, it might command the board to issue the license. Transfer and sale of licenses were permitted.

The following causes effected the immediate revocation of licenses: (1) A conviction of a felony during the term of a license; (2) a conviction for selling adulterated liquors; (3) a conviction of a storekeeper or druggist for selling for consumption on the premises; (4) a conviction of a holder of an ale and beer license for having sold spirituous liquors. A board of excise might revoke a license for a a number of causes, but a licensee always had the right to a writ of certiorari to review the action of the board.

Sales were prohibited on Sundays and on week-days between the hours of one and five A. M., on days of elections or town meetings, and within a quarter of a mile of a voting place while the polls were open. It was further prohibited to sell to any child under sixteen, intoxicated persons, paupers, habitual drunkards, and to any one to whom the licensee had been forbidden to sell by a written notice from parent, guardian, husband, wife, or child over sixteen, or magistrate, or overseer of the poor. Hotel-keepers were permitted to sell liquor to guests with meals, but not in the bar-room. No license was required for sales in quantities of five gallons or more for consumption off the premises.

gage in the traffic, and licenses were to be withheld when the commissioners were not so convinced.

4. This, together with selection by local authority of the excise commissioners, was the measure of the local self-government contained in the act and the principles on which it was founded.

5. The act was most successfully applied in towns where its provisions as to granting and refusing licenses were carried out by the excise commissioners, not according to the terms of the act, but according to the will of the voters expressed without provision of law on the question whether liquor should be sold or not, by electing commissioners in favor of or opposed to granting licenses.

The Raines Law.

This act had been in operation barely two years when the legislators were convinced that another principle of liquor legislation should be applied. The legislature could have granted to the cities of the state, where the principles involved are of the most serious importance, greater freedom in carrying out its own will on this subject or it could have assumed to the state government all the administration of the excise law reducing all regulations to one form and controlling the vast system through a concentrated centralization of power. It chose the latter course and expressed its will in the act of 1896, known as the Raines Law, which has subsequently been amended every year, and principally in the year 1897. The most important provisions of this act, as they exist at present, are given in a footnote.*

*Laws of 1896, Chapter 112.

Excise Officials.—The old boards of excise are superseded by a state commissioner of excise, appointed by the governor, with the advice and consent of the senate, to hold office for five years at a salary of $5,000 a year, to which is added the sum of $1,800 for expenses. He is under a bond of $20,000 for the faithful performance of his duties, and must appoint:

1. A deputy commissioner, at a salary of $4,000 a year, who must give bond in the sum of $20,000; a secretary, a financial clerk, and the other clerical force needed in his office. 2. A special deputy commissioner in each county having a city of the first class, to hold office during his pleasure. The amount of the bonds to be furnished by the special deputies is fixed by the state commissioner. He has also the appointment of the clerical force needed by the sub-officers and prescribes their duties. 3. Special agents to the number of sixty, at a salary of $1,200 each per annum. The special agents are deemed the confidential agents of the state commissioner, and have ample power. 4. Attorneys to represent him or act with him or his subordinates in legal matters arising in connection with the liquor tax law. All officers appointed by the state commissioner may be removed by him.

Classification of Cities and Towns.—For the purpose of grading the taxes

It is to be observed concerning this law:

1. Sunday saloon selling is absolutely prohibited.

2. The old boards of excise, of which there were 964 in existence when the act of 1892 was repealed, are superseded by a state commissioner of excise, appointed by the governor.

3. Licenses are graded according to the population of the place in which the business is carried on and not according to the kind of business.

4. Licenses are granted by the excise commissioner when the applicant conforms to the act in making the requisite statements,

---

on liquor selling according to the population of the place in which the business is to be carried on, the following classification has been adopted: First class, a city of 1,500,000; second class, a city having less than 1,500,000 but more than 500,000; third class, a city having less than 500,000 but more than 50,000; fourth class, a city or village having less than 50,000 but more than 10,000; fifth class, a city or village having less than 10,000 but more than 5,000; sixth class, a village having less than 5,000 but more than 1,200; seventh class, all other places.

Grades of Liquor Tax Certificates.—1. For the retail traffic in liquor to be drunk on the premises, tax rate: First class, $800; second, $650; third, $500; fourth, $350; fifth, $300; sixth, $200; seventh, $100.

2. For the sale of liquor in quantities of not less than five gallons, not to be drunk on the premises, tax rate: First class, $500; second, $400; third, $300; fourth, $200; fifth, $100; sixth, $75; seventh, $50.

3. For the sale of liquors by a duly licensed pharmacist, not to be drunk on the premises, tax rate, $5.00.

4. For the sale of liquors on steamboats, vessels, and cars, at retail, tax rate, $200 for each car, steamboat, vessel, etc., on which the traffic is carried on.

5. For the delivery of malt liquors from vehicles. The holder of a tax certificate for the sale of liquors in quantities of less than five gallons, who is engaged in the business of bottling malt liquors, and wishes to sell them at any other place than the one mentioned in the tax certificate, may sell or deliver malt liquors from a vehicle in quantities of less than five gallons, but not less than three at a time, on paying a tax of $100 for each vehicle so employed. The tax certificate must at all times be carried with such vehicle or be posted on it.

6. For the sale of alcohol in quantities of less than five gallons only, between the hours of seven A. M. and seven P. M., on any day except Sunday, for mechanical, medicinal or scientific purposes, by dealers who are not engaged in the sale of liquor of any kind, tax rate: First class, $25; second, $20; third, $15; fourth, $10; all others, $5.

Restrictions Governing the Sale of Liquor.—It is prohibited to sell, deliver, or give away liquors to any minor under the age of eighteen; to habitual drunkards; to an Indian; to a person to whom a dealer may be forbidden to sell by notice in writing from the parent, guardian, husband, wife, or child of such person over sixteen years of age, or by a magistrate or overseer of the poor of the town, but the latter only in case the person in question is wholly or partly a charge upon the town; to any person committed to a public institution, except on the prescription of a physician to such institution. It is further unlawful for one who has not paid

files a bond correct in form, with sufficient sureties, and pays the tax. The law states that when the formalities required have been observed, the commissioner "shall at once issue a certificate."

5. The law centralizes the control in one man in an unprecedented manner. He is the sole interpreter of the intent and scope of the law, and is endowed with plenary power to enforce the law and cause it to be enforced.

6. The law destroyed the shadow of local self-government for cities found in the law of 1892.

---

the tax to sell or give away any liquors in any quantity less than five gallons, or, without having paid such tax, to sell or give away liquors in any quantity any part of which is to be drunk on the premises.

It is prohibited to sell liquor on Sunday, or before five o'clock A. M., Monday; on any other day between one and five A. M.; on election days, within quarter of a mile of any voting place while the polls are open; to sell adulterated liquors; to permit any girl or woman, not a member of the dealer's family, or any person who has been convicted of a felony, to sell or serve any liquor on the premises. During the hours when sale is prohibted, the doors must be kept locked, and no person, who is not a member of the dealer's family or in his employ, may be admitted. During the hours when the sale of liquors is forbidden, any obstruction to a full view of the bar from the sidewalk is prohibited, and it is unlawful at any time to have an inclosed box or stall which prevents a full view of the room by every person present.

A person residing in a town where local prohibition obtains, is not permitted to take orders for the delivery of liquor to any person residing in the same town. Local prohibition does not, however, prevent manufacturers of liquor from legally selling in quantities of five gallons or more for delivery outside of town. The necessary exceptions are made to allow a holder of a pharmacist's liquor tax certificate to sell on prescription during the prohibited hours.

The holder of a liquor tax certificate of the first grade, who keeps a hotel, may sell liquor to his guests with their meals, or in their rooms, on Sundays as well as week-days, except between the hours of one and five A. M., but not in the bar-room. The term "hotel" is defined as a building regularly used and kept open for the feeding and lodging of guests, where all who conduct themselves properly and are able to pay for their entertainment are received if there be accommodations for them, and who, without any stipulated engagement as to the duration of their stay or rate of compensation, are supplied with their meals, lodging, refreshment, etc., and in which the only other dwellers shall be the family and servants of the hotel-keeper.

A hotel, if located in a city, incorporated village of 1,200 or more inhabitants, or within two miles of the corporate limits of either, must conform to all laws and ordinances relating to hotels and hotel-keepers. The building must contain at least ten bedrooms above the basement, exclusive of those occupied by the family and servants, all rooms being separated by a partition at least three inches thick, with independent access to a hallway. Each room must have at least 80 square feet of floor area, and at least 600 cubic feet of space. The dining-room must have at least 300 square feet of floor area, with accommodations for at least twenty guests at one

7. Hotels are excepted from the prohibition against Sunday selling, and in so excepting them, minute definitions of the terms "hotel" and "guests" are employed in the statute.

Objects of the Law.

It is obvious that the Raines Law was not the evolved result of previous excise laws growing naturally out of the desires and needs of localities on this subject. But it was the result of political conditions, namely: the pressing needs of the state treasury and the determination of the state authorities to compel the enforcement of

---

time, and must not be a part of the bar-room. The kitchen and conveniences for cooking must be sufficient to provide meals for twenty guests at one time.

A guest of a hotel is defined as a person who in good faith occupies a room in a hotel as a temporary home, but does not occupy it for the purpose of having liquor served therein; or as a person who, during the hours when meals are regularly served therein, resorts to the hotel for the purpose of obtaining a meal.

Clubs incorporated prior to the enactment of this law are exempt from the provisions regarding the sale of liquor to members during the prohibited hours.

In cities, the holders of liquor tax certificates of the first grade may, on the presentation of a permit signed by the mayor and chief of police and a payment of a tax of ten dollars for each day, obtain a special liquor certificate for sale of liquor during prohibited hours, one to five A. M., of one or more specified days, not including Sundays, at the place specified in the permit. No recovery can be had for liquor to be drunk on the premises when sold on credit.

Any taxpayer residing in a county, in which a violation of the law occurs, may present a verified petition to a justice of the Supreme Court for an order enjoining the person from selling liquor.

Local Option in Towns.—The law prescribes the submission of four distinct questions to the qualified electors of towns: Whether liquor selling shall be permitted, (1) for consumption on the premises where sold; (2) not for consumption on the premises where sold; (3) by pharmacists on a physician's prescription; (4) by hotel-keepers only. The fourth question reads as follows: "Shall any corporation, association, co-partnership, or person be authorized to traffic in liquors under subdivision 1 of section 11 of the liquor tax law, but only in connection with keeping a hotel, in ————, if the majority of the votes cast on the first question submitted are in the negative?" If the majority of the votes cast on the fourth question submitted are in the affirmative, and a majority of the votes cast on the first question are in the negative, a liquor tax certificate of the first grade may be granted to keepers of hotels who may sell liquor to be drunk on or off the premises, though the majority of the votes cast on the second question be in the negative. If the majority of the votes cast on the second question be in the affirmative, the holder of a liquor tax certificate of the second grade who is a pharmacist shall not sell as a pharmacist if a majority of the votes cast on the third question are in the negative. The questions were to be voted on at the first annual town meetings after the passage of the act, and are to be again submitted at the usual town meetings held in every second year thereafter, provided at least ten per cent. of the electors request a re-submission of the question by a written petition signed by them before a notary public.

excise legislation. There was a deficit in the state treasury. The legislature had been warned against large appropriations, and the Republican party was pledged to a reduction of taxes and committed to the policy of raising money for public purposes by other means than direct taxation.

There was no more promising field for state taxation than the liquor traffic, and it was readily seized. This motive was strengthened by the conscience of the people of the state, which had been aroused by the contemplation of the frauds, blackmail and evasions of the existing law, into a determination to secure a law which could and would be enforced. It was one of the hopes of many who approved the Raines Law that state control would compel complete enforcement of all its provisions.

The Raines Law as a financial measure was a success from the first year of its operation. It has turned millions of dollars annually into the state treasury, and has inspired several similar attempts to collect revenue for state purposes.

The direct political effect of the act is of little or no importance. The excise commissioner has ruled that it is his duty to grant all licenses upon an application presented according to statute without examining into the truth or accuracy of the statements contained therein or the moral character or fitness of the applicant. The commissioner has limited his efforts in the main to the collection of the license fees and has not used any of the force of deputies allowed him by law for the enforcement of the regulations relating to Sunday selling or to selling at times or in places or by persons prohibited by statute.

As a consequence the conditions relating to illegal traffic are much the same as they were prior to the enactment of the Raines Law; that is, its enforcement is left to local authorities. It is needless to add that this power is used to prevent violation of the law only in places where the provisions of the law meet with the approval of the majority of the residents. New York city is not such a place.

The Immorality of the Present Law.

Much moral improvement in this city was expected from the enforcement of the law. But great evils have followed from its complete failure to improve conditions. Members of this community have seen again that laws are not made to be obeyed, that

state officials are satisfied to see the law ignored, if only sufficient revenue is obtained to lighten the taxes of their constituents, so that disrespect for its mandate has grown and will continue to grow until the statute is put into complete operation or repealed. Following close upon this evil and its direct consequence, is the far greater evil of the creation of a class of legal criminals of men who are otherwise good and thrifty citizens, and the conversion of an honorable business into an illegal occupation. Laws should stimulate the tendencies to good in all citizens and not harass them into the pursuit of the bad.

It is claimed for the law that the high tax on saloons has decreased the number and thereby the evils following from drinking. It may be that the number of saloons has fallen, but it does not follow that the amount of liquor sold has fallen also. Indeed, it is probable that the amount of spirituous liquor consumed has increased, because the law has shut up many beer and ale saloons which formerly paid a small license fee, and are now compelled to pay a full saloon license fee or close.

From the discretionary power which the failure to enforce the law places in the hands of the local authorities springs the opportunity of oppression and blackmail which is rarely neglected by the officials in nearest touch with the people. This phase of the problem is too familiar to require more than emphasis and reiteration; and, bad as it is, it yields place to the peculiar compound of evil known as the "Raines Law Hotel." Looking at this artificial monstrosity now, it would seem that no brain could devise a plan better adapted to corrupt neighborhoods, if it had begun the task for the sole purpose of experimenting upon the best method of doing so. Coming at a time when an effort was made to enforce the law against gambling houses and houses of prostitution, the Raines Law gave the very opportunity needed to link the crimes of gambling and prostitution with the liquor business. Saloons which could not sell liquor on Sunday immediately became "hotels" by the hundreds and thousands. The law has debauched the liquor dealer and his employes, and fouled many a neighborhood otherwise decent. More than this, it has caused a large increase of evasion, deceit and perjury, made panderers of policemen and brought a new kind of guiltiness upon the official who will permit a violation of the liquor tax law, be he a machine man or a reformer.

In seeking the remedies for these conditions we must remember that the saloon problem is part of a much larger one: How far should society restrain the individual liberties of its members? The general principles to be followed are: First, that the proper function of law is to prevent one member of society from inflicting injuries upon the others, to protect each in the enjoyment of his rights. Attempting more than this has led inevitably to the assumption by a part of the community of the authority to impose its ideas of right and wrong upon the remainder of the community, which has led to all the tyranny of history, whether autocratic or democratic. The further function of the law-maker is to discover the opinion of the community on any subject, and to ordain and proclaim it in law as the standard of conduct on that subject. To do other than this is inevitably to impose some rule which runs counter to the opinion and wishes of the community, and it is disobeyed.

It is evident that if these rules be followed in seeking to remove the evils perpetuated and caused by the Raines Law, the legislature would seek to ascertain in what way any given city in this state wishes to have its liquor traffic regulated, and would legislate accordingly, either by enacting a law suited to local conditions or by some plan for local option.

Remedies Proposed.

The three principal methods of relief which have been suggested are:

1. That the legislature should so amend the Raines Law that it would not prohibit Sunday selling in saloons between the hours of twelve noon and ten o'clock at night on Sunday.

2. That the legislature should pass a law authorizing New York city by vote at a special election to determine for itself whether liquor may be sold in saloons on Sunday.

3. That the legislature should so amend the Raines Law as to extend to restaurants all the statutory rights possessed by hotels to sell liquor on Sunday.

The arguments for Sunday opening by legislative act are set forth in this number by District Attorney Jerome. The reason why the principle of local option should be applied to the Sunday question are presented by the Rev. Dr. Lyman Abbott.

The choice of either system by the legislature presupposes an entire change of opinion on the part of the voters in the rural dis-

tricts from the time when, in 1892, they were deaf to the appeal of 150,000 voters in this city in favor of local option and when, in 1895, the voters once more approved the principle that this city should not be allowed to traffic in liquor in saloons on Sunday, whether it wished to do so or not.

Sunday Opening Should be Extended to Restaurants.

The third remedy suggested recognizes this condition of rural option not as reasonable but as unalterable at present, allows the law to remain in full force and extends to restaurants the statutory rights of Sunday selling now vested in hotels. This is a measure of temporary compromise to abate pressing and flagrant evils until the city is able by educating the rural population to obtain from the legislature the right of self-government. It violates no inherent right. On the contrary it extends one step further the application of the principle of personal liberty on which the other proposed remedies are founded.

It is recognized by all that the evil conditions which most need to be remedied at once are those attending the lower class of "hotels" which have developed under the Raines Law. It is practically impossible to wipe out these evils by an amendment of the hotel section of that law. The only methods of amending this section are by omitting the statutory definition altogether, by increasing the statutory requirements, by decreasing them, or by inserting in the law a provision that the "hotels" should be reputable or possess some such moral qualification.

It would be contrary to the policy adopted by the state authorities to omit the statutory definition of a hotel, because in the uncertainty as to what constitutes a hotel, too much discretion would be vested in the police authorities, with the result that the courts would be compelled to define a hotel in a much less definite and satisfactory manner.

It would be unwise to attempt to increase the requirements of a hotel from ten to fifteen, twenty or more rooms, for the reason that many citizens would justly complain that their liberties would thereby be curtailed more than they are now.

It would be unwise to reduce the number of requirements of a hotel from ten to five or less rooms, because that would result in a greater amount of evasion of law with the consequent immorali-

ties and crimes, as all saloons could then become hotels with little expenditure of money.

It would be unwise to insert in the law a qualification that the hotel should be reputable, because such a phrase would vest in the police authorities an original discretion larger than should be conferred upon them, would conduce to blackmail and would cause much uncertainty, and ultimately force the courts to determine what is a reputable hotel, and the jury to find the facts in each individual instance. It would seem better policy, if the hotels are to retain their privileges, that they should be defined by statute, rather than by custom, the discretion of the police authorities, the rulings of the courts and the findings of juries.

Therefore, a method must be found which will allow to reputable hotels all the privileges which they now enjoy and which will take from all hotels and saloons especially, the temptation to traffic in the social evil.

If the Sunday selling privileges of hotels were extended to restaurants, there would be no reason for the formation of "hotels." It matters not how strict and minute the statutory definition of a restaurant may be, such a change would be a vast improvement upon the present law, because it would necessarily eliminate all rooms and consequently remove immediate temptation and opportunity from the building where liquor may be sold.

This is the important reason why restaurants should receive the privileges of selling liquor on Sunday. Another reason is that a tendency would be created by such a change toward improvement in the surroundings of Sunday drinking places. The worst of the saloons would more probably be closed and the better ones would be developed into something other than drinking places, where persons would be able to take members of their families with them and drink at a table away from the bar and out of the barroom.

This amendment would not require that a meal be served with each drink, but it would direct that a drink may not be provided on Sunday in a place where in good faith meals may not be served if required and where in good faith meals are not customarily served.

Another and strong reason for this amendment is that it would increase the respect for the law in the community and cause it to be observed and obeyed to a greater and greater degree and take away the necessity which confronts many of our citizens of becoming

sneaks and evaders whenever they attempt to do what they think the law should not prevent them from doing and what they believe to be innocuous and know would be innocent if the rural voters were better informed of the conditions which exist in this community.

It may be stated in conclusion that the real question to be answered is not so much whether liquor should be sold on Sunday, but whether one part of this state should enact a law of purely local concern for and contrary to the wishes of another part, great in numbers and important in mental, moral and material quality. If the rural community continues to do so, the law will be continuously disobeyed in this city and habits and tendencies of lawlessness will be continuously generated and nourished, which may some day grow into destructive activity.

THE RAINES LIQUOR TAX LAW.

STATE PROMOTION OF VICE.

By JOHN DEWITT WARNER.

Numerous as are the criticisms to which the "Raines" law is subject; questionable as are the theories of many honest people who help to enforce it; fair as has been its administration by the department of excise; after careful observation for years, I believe its use as a cover for blackmail in return for protection of vice to be so general and flagrant as to demand amendment by repeal of certain provisions; that these are little utilized except for blackmail, and that this inherent vice is the worst defect of the act.

To this alone, therefore, I shall refer. Among its prohibitions are: That no one shall traffic in liquor between one and five o'clock in the morning; or on Sunday at all; or have open or unlocked any door during prohibited hours, except for the owner, his family or servants; or admit any other person during such hours; or have the windows screened; or sell except so as to be seen from the outside; or sell liquor in any enclosure, which prevents a full view of the entire room by every person present at the place covered by the license; *except*, among other provisions, that on Sunday, after five o'clock a. m., the keeper of a hotel, that is to say (if in or within two miles of a village or city of 1,200 inhabitants or more), having ten furnished bed rooms, with sundry other hotel accommodations, may sell to one who in good faith occupies a room—not for the exclusive purpose of having liquor served therein—or who at meal hours resorts thither to get, and does get, a meal.

Objections to the Law.

First: By certain of these requirements, the social habits and tastes of citizens are offensively violated, and the sale of liquor for any purpose at any time obstructed by forbidding service in privacy and with regard for the common decencies of life, which

everyone has a right to ask to be respected. In large measure these requirements are obeyed, and in large measure they are disregarded by those who hold liquor certificates. But in largest measure of all the result is to suggest and promote large sales of liquor in the same general localities under illegal conditions. The result is somewhat to degrade and reduce the business, and to obstruct citizens in their use of liquor, but principally to enable the local police or political leaders to exact petty or serious blackmail in cash or political service. This fosters disreputable, as well as decent clandestine selling, reduces the public revenue, and leaves the community without respect for law.

Second: The Sunday provisions are so largely violated as to be ineffective for any legitimate purpose. That is to say, generally throughout the state where liquor selling is permitted at all anyone (except an orderly citizen too scrupulous to evade the law) can procure, at almost any time on the Sabbath, liquor to any extent he may find convenient; and this by such "arrangement" between the political managers of the neighborhood as favors the party or boss most unscrupulous, and whose influence is most used for corrupt, and least for public, interests.

Third: The great vice of the law—its crowning infamy in practice—is, however, the "hotel" provision.

The "Hotel" Clause.

Not to note other less important directions in which this feature is oppressive or invites abuse, we have this situation, thus dealt with: In its full force the hotel provision applies to cases in or near towns of above 1,200 inhabitants—in greatest measure, of course, to the great cities of our state. In these alone are a majority of our inhabitants, 80 per cent. of the licensed liquor dealers, and from them is derived nine-tenths of all revenue under the law, That is, this provision specially applies to the cases where, conveniently to meet orderly demand for liquor, it would be sold at, certainly, four or five times as many places as those at which hotel accommodations would be offered or needed; and in the greater and more important part of this area, to one hotel there would naturally be at least ten places for the sale of liquor. The requirement, therefore, is that throughout the state, especially in its great cities, and peculiarly at New York, three-fourths at least of those who under proper regulation as to order, etc., would deal in

liquor, must either go out of business, actually keep a hotel where none is needed, or pretend to do so, though they actually do not.

In villages and the smaller cities this may materially reduce the number of saloons (and materially increase clandestine selling). In the larger cities, where the license is higher, but actually more moderate in proportion to average business which each does, this effect is but slight, though somewhat in both the directions noted; while at New York, in which city live nearly half of all citizens in the state, it has too little effect in reducing the number of dealers to be worth while noting; licenses being constantly in demand for the greatest number of places that, under any circumstances, could be conceived of as possible to profit under current license rates or to be required by the most exaggerated convenience of any one. But from one end of the state to the other—especially in our larger cities, and most of all at New York—behind a "hotel" plant is carried on the same Sunday traffic in liquor that would be had in the absence of any legal restrictions being too easy and farcical greatly whatever, the methods of evasion to obstruct the traffic.

Prostitution Increased.

Of these "hotels" there are three classes:

First—Those which are legitimately such; and which find their profit in general provision for guests of which liquor selling is but a factor.

Second—Those which, though practically established for the exclusive purpose of the liquor trade, do maintain at a loss, and not intentionally for otherwise than for desirable guests, the legal accommodations required.

Third—In greatest measure, the "Raines Law Hotels"—mere excuses for liquor selling on Sunday and during the night. In perhaps half such cases, generally—and in most of the remainder occasionally—they are used as houses of assignation—the one use to which can be put groups of bedrooms so undesirably situated for other lodging purposes, as in the average are those over saloons in our more densely populated districts. Moreover, in connection with their use—in addition to greater rent than any other use would produce—is to be made most profit from liquor selling and panders' commissions.

As a result, whereas ten years since we had probably less of

and this was then so far segregated as but slightly to encroach upon the residence conditions of either poor or rich, we now have, throughout our city—especially in its most thickly populated quarters—on a large proportion of the street corners, as well as frequently in the street blocks adjacent—series of furnished bedrooms so undesirably situated for legitimate use that the income therefrom must be in proportion to their misuse.

That is to say, our law burdens the majority of the more responsible class of liquor dealers in this city by unconscionable requirements for the privilege of selling liquor, unless they also keep assignation houses; in which case they can not merely use their "hotel accommodations," but realize largely from increased liquor sales at double or quadruple prices, and the commissions they can exact from women for whom, as well as for themselves they may find customers.

The result is the natural one. However hard it may be to make proof in any one case—however little wilfully guilty many a dealer may be—the law is so constantly violated that he is at the mercy not merely of every police and excise officer, but of every citizen. He must have "protection." For this the rates are as well known in the neighborhood as the current price of sugar, and are graded by the extent and normal profit of the infamy permitted and the definite aid that, as distinguished from mere disregard, he may require from officials against good citizens who may attempt to prosecute him.

While the foregoing is a moderate statement of the situation, it would be unfair to charge full responsibility upon the liquor dealer, even for exploiting it; though conditions thus inviting depravity tend to drive from the business the better class of dealers. This is specially the case in some localities, while others are less affected. Not merely, therefore, is the weakness, rather than the depravity, of the "hotel" keeper responsible for many of the worst results; but perfectly good intentions would not suffice to prevent misuse of accommodations thus required by law.

The Evil Scattered.

The situation is too plain and too vicious to need argument. A word, however, may suggest what is perhaps its worst result—one with which Manhattan has been blistered until over large sections the situation has become that of an open sore.

The social evil is certainly bad enough when its standard form is that of a whole house devoted to it, in which reside women who ply their trade; to which admission is invited or permitted only for it and its service; and where the delay and trouble of procuring liquor somewhat discourages its use—the tendency being towards such grouping of such establishments as segregates this business from residence quarters, and towards lessening the extent to which the trade is plied by women residing in private apartments, especially in tenements or apartment houses.

The "Raines law hotels," however, are normally most numerous in quarters where the population is most dense. So long as lodging rooms are let to those who reside elsewhere, the fact or pretense that they are received as guests, and that the proprietor is legally not chargeable with knowledge of their purpose, is possible to be urged, as it could not be were the women permitted to reside there. The women engaged must, therefore, live outside of the "hotel," but nearby, and in apartments where, their business not being there carried on, they are comparatively safe from arrest—that is, as lodgers or residents among the worthy population of the district.

The proximity of the bedrooms to the bar is such, and the prices charged under such circumstances so exorbitant, that every inducement is given for drunkenness in connection with its sister vice; and the prostitute and the liquor dealer are thrown into a natural alliance, to the oppression of the latter and the profit of the former.

It would be hard to make these conditions worse. In fact, until the "crusade" of last winter, they had lately become more disgusting, dangerous and pitiful throughout quarters of our city where half a million of our most worthy, but most helpless, population live than at any time over any equally extensive quarter of any other city—heathen or Christian—that has ever existed. Our "Raines law hotels" had operated to establish at every street corner and in every block of our most thickly populated districts such a combination of impurity with drunkenness as otherwise rarely existed. An essential feature of this was myriads of prostitutes, scattered singly or in small groups among the worthy families of the district, while the result was to build up a business, so much

more infamous and profitable than any which had heretofore prevailed, as to require special police and other political protection as a condition of its existence, and to provide abundant blackmail with which to secure it.

In our late mayoralty canvass a leading issue was one of protection of vice—prostitution first of all—by the administration which our voters have just horsewhipped at the polls. Other issues were also mooted—one that has always been with us—tolerance in matters of habit and taste. Both reformers and deformers, however, conceded the propriety of repealing some of the Raines-Law-hotel and Sunday requirements. And the citizens' ticket having won, upon the reform administration now rests the duty of representing New York in such appeal to and pressure upon our state legislature as shall effect the end desired. This is already organizing with the promised help of practically the whole delegation from this city of whatever party; while in every direction the "up state" local statesmen and the responsible leaders of the Republican party (which controls the legislature) are being sounded as to their position.

The Real Issue.

Meanwhile, as the writer believes, the real issue, though becoming appreciated, is as yet suppressed, and must be understood and urged before success can be hoped for.

There is unquestionably much bigotry that must be overcome—much of it conscientious and high minded, and strong because of its sincerity and disinterestedness; but this is a rapidly waning force, even among the Protestant clergy, the leaders of which are in large measure of liberal mind, and in increasing measure of broad view.

"Conservatism" is also strong, especially in the rural counties; but, except as bigotry misnamed, it is inertia rather than force, and simply requires a perfectly practicable amount of educational work or propagandist activity to overcome it.

There will remain, however, the real backbone of the opposition to any liberalizing of the law, especially by repeal of hotel or Sunday features—that is, the interest which most profits by them and by whose craft and in whose aid they were devised—*the combine between corrupt state politics and state protected vice.* Just as in this city (though the opportunities afforded were always largely used for the party purposes of Republican as well as Demo-

cratic scoundrels), the Tammany administration in control was rightly charged with the status it permitted; so (though under the liquor tax act corrupt Democratic local officials or politicians may profit) the Raines Law as it stands represents a corrupt combine between the Republican state organization and the protected vices of Sabbath-breaking, Drunkenness and Prostitution. Our citizens who hope for better things will succeed in proportion as they recognize that the coming issue against the protection of vice by the Republican state machine, under the Sunday and "hotel" clauses of the Raines Act, will be a war compared with which our late grapple with Tammany was but a skirmish; but in which we can enlist the aid of Republican voters as fast as they can be brought to understand the infamy which, for party advantage, some of their leaders would foster—just as lately Tammany's voters turned against her as they realized the cause in which they were being used.

I know there are worthy people who believe that abuse of liquor can and should be prevented by law; that evasions of "hotel provisions" can and will be suppressed by vigilant officials; that, given the opportunity for blackmail thus afforded, a police force can be kept from practicing it; and even that fornication itself can be legislated out of our cities.

With these I have no argument. Either they are misinformed or I am so. But it is pertinent to note that, with all the bias and prejudice that on such questions so greatly influence all, the issue on repeal of the Raines law conditions, on which Sunday selling is permitted, is not between the Sabbath-keeper and the Sabbath-breaker, the teetotaler and the drunkard, but rather between those —whether abstainers or liquor users—lovers of a "Puritan" Sunday or of a "Continental" holiday—who have had experience and those who have lacked it.

For example, on the side of local option that would empower the wards of a city, each for itself, to permit or prohibit Sunday liquor selling within prescribed limits, by others than "hotel" keepers, is Rev. Dr. I. K. Funk—than whom there is no more able or distinguished temperance worker.

The *Independent*, that for so many years has so well represented our great "Puritan" contingent, has lately thus expressed itself:

> It is only repeating what every one ought to know when we say that the state can properly concern itself with Sunday, not for the sake of Sunday observ-

ance, but for the sake of securing suitable rest and comfort and protection for its citizens. It must see that certain time is allowed for a holiday; the Fourth of July, Saturday afternoon, Sunday, if Sunday be the rest day the people prefer, or Saturday, or Friday, if the people prefer that. The state cannot close a saloon on Sunday because it is a holy day, while keeping it open six other days, except as an open saloon on Sunday involves labor interfering with the rest-day, or holiday (and the people have the right to make it either), or disturbs the peace. A religious reason for closing the saloon on Sunday the state has no right to make; it can consider only the special benefit or injury to the community of having it open on Sunday, as compared with other days.

We are now considering the saloon not as in the class with factories, whose work must stop one day in seven to give rest and recreation to the workers, but in the class with bakeshops and street cars and public parks and museums, which cost some work, but are mainly for comfort, recreation and pleasure, and which accordingly are open on holidays, where a few work for others' recreation or comfort. We wish the people were educated to the Cambridge plan of suppressing the saloon seven days in the week; but if we cannot do that, we would allow it to be open at the hours on Sunday when it is most wanted, and then closed at other hours to allow rest to its bartenders. We would at least get rid of the shocking evils that have grown out of the well-meant Raines Law.

While the New York *Times*—so far a purist that it preaches and practices the principle of ignoring what it considers the well-disposed prefer not to discuss—has noted what might well be kept pasted in the hat of many forgetful enthusiasts:

He [a correspondent] speaks of our advocacy of "a law that will legalize the sale of rum on Sunday" as if it were the advocacy of an entirely novel and unprecedented statute.

He does not appear to know that the present law does precisely that. Every "hotel" licensed under the law named after its sponsor, Senator Raines, whether it be the Waldorf-Astoria or a corner saloon with ten "rooms," sells "rum" on Sunday and pays a handsome sum into the state treasury for the privilege. A number of social clubs in this city, including some within the shadow of church spires in the Borough of Brooklyn, sell "rum" to their members on Sunday at various rates of profit. We advocate no change in principle, therefore, but only a change in the scope of the law.

The writer does not expect anyone to submit to the judgment of others his own conviction based on experience as broad as theirs. Nor has he any criticism upon those who sincerely misjudge their own competency. Most people, however, perfectly appreciate that they have had no experience that specially qualifies them to pass upon the question here. We believe it only needs that those who have learned the conditions on which law is enforceable, or its enforcement effective to promote public order, should take the lead; and that those who have not that background for their views, should follow those whom they feel best qualified to judge.

We are aware that it has been suggested, and even urged, that

executive repeal of conditions for "hotel" service be had by permitting general violation of the law. We appreciate too well the dilemma between the self-respect of a public official who has sworn to enforce the law, and the veto of his common sense against promoting disorder by the enforcement of a law which both he and the community consider worse than useless; and we have no sympathy with the official who so forgets his more modest duties as specially to devote his energy and that of his subordinates to enforcing bad law in order to make it odious. But for our officials, either by winks or by direct promise of immunity, to encourage lawbreaking, would turn "reform" into a hissing and a by-word, and strip our city administration of the moral support without which it cannot succeed. For the one point upon which our citizens would then agree would be that every citizen had the same right as the mayor or police commissioner to select the laws he proposed to disobey; and that, as between two dirty pots, the one that called the kettle black should be first broken.

If there be any doubt as to public opinion upon this point, it can be met by such amendment of the Raines law as, in cities of the first class, shall leave to their local legislatures the extent to which its Sunday and Hotel provisions shall be enforced.

To this there are two objections: One, theoretical, in that it leaves the majority power to restrict the minority in matters where each should be left free; and the other practical, viz., that granting a referendum in this matter would doubtless be but the opening wedge for similar action in other regards, and a break down of the pernicious solidarity by which Democratic cities are kept dependent upon the Republican state organization.

Since, however, the first objection is still stronger against excessive state rule, it might well be waived in favor of home rule. As to the second, it suggests rather the obstacles to success than any legitimate reason why the fight should not be pressed.

If it be said that the referendum should be to individual voters rather than to their representatives, the answer is obvious. Whatever respect might be due to such suggestion coming from another source, it can scarcely be urged by our state legislature, no estimate of whose representative character in this regard would put it before our city legislature, the members of which are directly chosen by our own citizens to attend to our local affairs.

As the law now stands, it not only permits liquor selling on Sunday by legitimate hotels; but has brought into being to share that permission the "Raines Law Hotel," the proprietor of which is fined $500 to $1,500 per year unless he panders to lust as well as thirst, and the popular name of which as just quoted, connoting as it does the worst possible combine of the most degrading vices, has become an epithet that carries with it more of foul implication than any other term by which the hold-door trade has ever been branded.

The issue of State-Blackmailed Vice is as plainly "up to" Mr. Platt as was lately City-Blackmailed Vice "up to" Mr. Croker. He is neither so stupid as not to know the situation, nor so palsied that he cannot handle it. And just as, without caring whether or not Mr. Croker personally liked the unspeakable conditions prevailing in his Sullivan satrapy, he was loaded with the infamy he permitted until his political back was broken; so, whether or not Mr. Platt would incite law breaking, drunkenness and prostitution except as means to other ends; yet so long as he thus permits and uses them, he must stand as the champion alike of political corruption and social vice, and suffer the consequences as fast as his own party shall realize it. As to the Governor: It will be time enough to hail him as a deliverer when he shall have permitted himself to be billed in that role.

ENFORCE THE LAW.

By M. N. Clement.

Note.—It should be understood that the suggestions I make upon the excise problem represent my individual views as a citizen, and that I do not assume to speak on this occasion for the State Commissioner of Excise.

It is the settled policy of the Department of Excise not to exploit or oppose excise legislation. We recognize that our functions are not to enact law, but to administer it as we find it.

The Raines Law—Its Provisions.

The liquor law is not well understood. The number of provisions that have been discussed and criticised, which are not in the law at all, is both astounding and amusing. It has been most condemned for what it does not contain; for changes in the excise system of the state that have not been made, and for evils and abuses which exist, not because of the law, but in spite of it, because of its non-enforcement.

The excise question is not a new problem. Excise legislation and excise abuses have vexed New York state and city since the settlement of the commonwealth. From the enactment of 1857 to the so-called Tammany Act of 1892, more than one hundred excise laws were passed and amended. As to conditions existing under the law of 1892 and previous statutes, I beg to quote from the report in 1898 of the sub-committee of the Committee of Fifty, composed of Mayor Low and other distinguished citizens, formed to investigate the liquor problem: "The points to be emphasized are that liquor laws were held in contempt and not enforced." We should bear in mind, therefore, that the excise problem is of long standing, and the more serious abuses which pertain to it are of a decidedly chronic character.

It is said, however, that the liquor tax law is the cause of a most serious condition which exists to-day in a particularly aggravated form in this city—the disorderly house nuisance in connection with the hotel business. The present law defines a hotel, if in a city, to be

a house having at least ten rooms for guests. This provision has been loaded with opprobrium as being the direct cause of all the disorderly hotel nuisances that have existed in the State of New York during the last five years. Yet the excise law of 1892 contained practically the same provisions. The change in details under the new law, as to size of rooms, furnishings, partitions, windows, light and air rendered the existence of sham hotels even more difficult than under the old law.

The evidence is overwhelming, and, so far as I know, undisputed, that, under the Act of 1892, the places trafficking in liquors to be drunk upon the premises where sold, numbering 7,841, in the old city of New York, now the Boroughs of Manhattan and the Bronx, did business on Sunday, almost without exception, many of them openly, others through the side or back entrance. Why should there have been so marked an increase in the ratio of hotels and a corresponding decrease in that of saloons under the new law? Simply because the Raines Law contained a provision requiring the removal of all screens and curtains from the windows of barrooms during Sunday and prohibited hours, which rendered the continuance of Sunday traffic in saloons impracticable, if not impossible. This, and the fear that the provisions more clearly defining the duty of police and prosecuting officials and providing severe penalties for the neglect of duty, might stimulate greater official activity induced saloonkeepers to get farther under cover, not to attempt to secure new privileges, but the better to insure the continuance of Sunday business, which they had conducted without let or hindrance under the Act of 1892. The Raines law also made it unlawful to maintain any stall or booth in any saloon or place where liquors were sold, thus destroying the places provided in saloons for disorderly practices.

The disorderly nuisance in connection with Sunday traffic in liquors has changed its form, I grant you, but I insist it has not increased its substance; on the contrary, it has decreased in number in practically the same ratio as drinking places have decreased under the Raines Law. Before the present law was enacted the Sunday saloon—and all were then Sunday saloons—had stalls and boxes, having doors with inside bolts and no outside knob, accessible by the family or side entrance. That was the predecessor of the Raines law hotel. The disorderly Sunday nuisances existed in this guise

under the old law, and have been continued as so-called "Raines law hotels," not because of the law, but because of corruption, indifference and incompetency on the part of police and prosecuting officers. Such conditions cannot continue to exist anywhere in the state under the present law in an honest official atmosphere.

Can the Law be Enforced?

From personal experience during six years as district attorney under the former law, I unhesitatingly say, yes. From the success of the department of excise in compelling the 28,000 liquor dealers of the state to comply with the law by payment of the enormous tax of over twelve millions annually, and from our successful prosecution of hundreds of civil actions and proceedings under the law, before courts and juries alike, I say most emphatically that the law can be enforced. Not long since, a certain police official of this city, who took his oath of office seriously, demonstrated that the excise law could be enforced, and it did not injure him or his party, notwithstanding the dire prophecy of weak-kneed advisers, who would serve expediency rather than duty. If there is any doubt about this, a letter of inquiry addressed to the President of the United States would without doubt bring a prompt and convincing response, which might properly be entitled, "Wild political prophets I have known."

Who Demand Sunday Opening?

Whence this demand for unrestricted traffic in liquors during a part of Sunday? I am aware that it is made in the name of labor, but when or where has organized labor expressed any desire in this direction? The demand of labor for the privilege of patronizing the Sunday saloon is conspicuous by its absence. The man who earns his bread by the sweat of his brow and has a wife and children depending on him is not clamoring for greater opportunity to spend more of his meager earnings for drink, and less for family supplies than the six days of open trade now furnish. He is already prohibited by law from the purchase of any of the necessaries of life for himself and family, and he does not seem to clamor for a chance to spend more of his earnings for liquor, and less for the dependent ones at home, for whom he is responsible. I speak for the manly, industrious laborer, who wants and readily finds plenty of work, for the toiler in humble life who has the decent instincts of the husband and father, and not for the hanger-on of saloons who has no

work and wants none. Is *he* calling for more beer and less meat, less coal and less clothing?

What then is the source of this so-called demand for enlarged privileges for a traffic which the courts of this state, from the highest to the lowest, have, from time immemorial, branded as a business dangerous to public morals and involving public burdens? It recalls the old story: "The voice is the voice of Jacob, but the hands are hands of Esau." The demand is urged in the name of labor, but the hands are the hands of the manufacturers, the brewers, who are anxious to have a monopoly of the trade of the wage-earner, while the doors of the grocery, the market and the store, which his family needs, are closed by law.

A Moral Question at Issue.

We might as well face the question squarely. The trade that produces the greater proportion of pauperism and crime in our midst wants unlimited license. They pay to the state now over twelve million dollars annually for the privilege of putting their products on the market six days in the week, and of selling to the actual guests in bona-fide hotels and in clubs organized prior to March 23, 1896, on Sunday. And they now want more of the day which has been set apart for rest and worship, and are undoubtedly willing, as they are unquestionably able, to pay for it. Is God's holy day in the market, and what shall the price be? How much added tax should be imposed to offset the damage that will accrue to society? Many good men have been shocked at the mere charge of commercialism in politics, even without proof, but this goes much further. This is clearly a question of commercialism in morals. What will the right-thinking men and women of the Empire State, and of this imperial city say? What will the wives and children of labor, to whom it means less comfort and more misery, say?

If this is to be the result of the recent overwhelming victory in the name of reform in this great city, may we not learn in the end that it was obtained at too great a cost? It means turning the hands on the dial of progress toward better government backward, else our traditions, law and policy of government have been wrong for more than two hundred years. It has been said that if this concession be not made, then in two years the reform administration will be swept from power. Will there be those in the State of New York,

and their name is legion, who think that two years of enforcement of law will make more for the cause of good government and good citizenship than a further continuance at the expense of legalizing bad conditions, because of which a discredited city government has just been driven from power?

It is urged that, with its cosmopolitan population, New York city presents a radically different phase of the excise situation than exists elsewhere in the state, and that for this reason general remarks are not strictly applicable. As to this view, I submit the testimony of prominent city officials, who have had the opportunity which residence and official service furnish for studying actual local conditions in respect to the liquor traffic and its influence. I quote briefly from a preamble and resolution in the official record of the board of excise of the City of New York, adopted December 31st, 1895:

Whereas, there are now, including the recently annexed district, 9,058 places licensed in this city for the sale of intoxicating liquors; and,

Whereas, this state of affairs is wholly inconsistent with a high degree of public morality and safety, but it is directly conducive to poverty, wretchedness and crime; and,

* * * * * * *

Whereas, it is undisputed that the majority of the inmates of the charitable institutions receiving by law the excise moneys are brought there directly or indirectly as the result of intemperance; therefore,

Resolved, That, in order to further regulate the sale of intoxicating liquors, and to increase the revenues, * * * the fees for licenses issued upon applications made after this date, be, and the same are, hereby increased to and fixed at the highest limit allowed by law.

While the last board of excise in this city were unable to "promote public morality and safety" by increasing the revenue and decreasing the number of saloons, by reason of being legislated out of office, the Raines Law has accomplished these desirable results to a greater extent than was possible under the provisions of the old law.

What the Raines Law has Accomplished.

The Raines law has increased the city's revenue largely. It has collected annually without cost to the city, and paid directly into your city treasury more than $5,300,000, and, in addition, has paid into the treasury of the state half as much more, which has been applied to the reduction of the state taxes. The amount of state taxation from which the city of Greater New York has been thereby relieved has been upwards of $2,500,000, making a total yearly ben-

efit to the city, under the present law, of over $7,900,000, as against $1,736,000 derived from the law of 1892.

It has not only increased the revenue, but it has closed the doors of more than 2,900 saloons, which, if placed side by side with an average frontage of 20 feet each, would make a street over five and one-half miles long, built up solid with saloons on each side. This revenue and this result from Albany.

Do you not think the law merits a fair trial under the favorable conditions with which you start the new year before you seek to have the benefits to public morality and safety, due to decreased number of saloons, impaired by increased hours of business at the most dangerous time, owing to the idleness of the people?

Let us not be deceived as to the situation. The interests likely to be most substantially benefited are trying to force public sentiment and secure from the law-making power a concession never before seriously considered since the ordinance of 1657 prohibiting Sunday traffic in liquor in this city under the name of New Netherlands. The proposition is to increase the working capacity of the machinery, which the courts and the last board of excise in this city under the old law say is a most fruitful source of pauperism and crime.

Can you give increased license to the cause without increasing the effect? Can you enlarge the operating hours of the machinery that produces pauperism and crime without increasing the demoralizing influence which has destroyed more manhood and virtue, wrecked more lives and homes than all other bad influences in the world combined? The enemy of industry! The greatest foe to success!

The apparent haste to emasculate the present law before the adequate remedies it prescribes have been tested almost begets the suspicion that reform has run away with reason. When the law is properly enforced and observed by liquor dealers the same as other business men comply with law, then we will be in a position to fairly and intelligently judge of the merits of the liquor tax law, and if it shall be found that we have too much peace and good order in the community, if the laborer is actually spending too much time with his family and not as much in the saloon as the public interests require, if pauperism and crime are found to decrease to any alarming extent, then we can amend. But I respectfully submit

that what the people want first and want most is that their officia servants faithfully perform their sworn duties, in the spirit and to the letter of their oaths of office, and the people will sit in judgment on the result. They can be safely trusted. If they then desire changes, they can be depended on to compel their servants whom they select to represent them in the legislature to execute their will; but for the present, I believe we have had enough of the fruits of lawlessness and crime and of the results of hatred and contempt for all laws and authority which follow in their train. Yea, please God, we have had enough of shifty and colorless policy of government, that fouled nest of state wherein among its iniquitous brood of lesser crimes even hated and abhorrent anarchy is hatched.

LIBRARY OF THE UNIVERSITY OF CALIFORNIA

LOCAL OPTION BY POPULAR VOTE.

By Lyman Abbott.

Problem Stated.

The question which we have to consider is a complicated one. We may well be suspicious of quick and easy solutions. It cannot be solved on the one hand by leaving the law as it is and rigidly enforcing it, either through a municipal police or a state constabulary. It cannot be solved, on the other hand, by changing the present law so as to permit Sunday selling in the city of New York between certain defined hours. The issue is not one joined between the criminal class and those who purvey to them in the city on the one hand, and the churches and the men of principle and respectability in the country on the other; nor is it one joined between a liberal, intelligent and progressive community in the city and a narrow, bigoted and intolerant Puritanism in the country. No such simple remedy will meet the difficulty; no such simple diagnosis will explain it.

It is a simple truism to say that we are all the product of our heredity and our environment. We are made up of the traits which we have inherited, in some instances modified, in others intensified by our education, especially by our early education. No man can cut himself loose from the traditions of his childhood; this would be to cut himself off from himself. These traditions have given to us and to all of us not only our prejudices, but our moral and even our religious principles. The state of New York contains a heterogeneous population, whose intuitions and education, whose birthright and traditions are widely different and have made of us widely differing men and women. Our ideals of taste do not differ more widely than our ideals of right and wrong. What seems vice to one seems innocent to another; what seems reprehensible to one seems virtue to another.

With these differences in the realm of esthetics and of religion we are familiar. They are not less noticeable in the realm of ethics.

The Jew observes the seventh day; the Christian the first; the Roman Catholic worships in the mass and looks with a pity akin to contempt on the seemingly cold and barren services of the Protestant; the Protestant returns the pity with abhorrence for the idolatry of the mass. To one man the theatre is an innocent and healthful refresher of life; to another, a minister to sensuality and vice. One man regards alcohol in all its forms as a poison which ought to be relegated to the drug-shop and perhaps not even sold there; another pitifully regards his neighbor who denies himself the esthetic pleasure of a glass of wine which in his opinion converts dinner from a mere feeding time into an esthetic social recreation. One man looks upon the saloon as a door to hell, and he regards the passageway between the vestibule and the room to which it conducts as a very short one; the other commends the saloon as "the poor man's club," whose incidental vices he wishes to cure, but which he by no means wishes to see abolished.

The fundamental question which confronts us is: How shall law deal with ethical problems in a community made up of members possessing such widely different ethical standards? And the problem is made more difficult by the fact that the community which is made up of these heterogeneous elements, and which possesses these variant and antagonistic moral ideals, is itself to make the laws. The real problem is this: How can men, some of whom observe Saturday, and some of whom observe Sunday, and some of whom observe no day, combine in making Sabbath laws? How can a people, some of whom think that all drinking is a sin, and some of whom think that all refusal to drink is due to ignorant bigotry, combine in passing liquor laws? This is the real question which confronts us. This situation is not created by the Raines law. It would not be obviated by a repeal of the Raines law. There is no short and easy way to its peaceful solution. We shall get that solution only by finding some fundamental principle by which a community essentially self-governing may govern itself in matters in respect to which its various members entertain ideals which are wholly inconsistent and mutually antagonistic.

Liberty in the Light of History.

History appears to me to answer this question, and this answer and its application to the present problem I wish to put before you. In the 16th and 17th centuries this problem was presented

in the sphere of religion to the statesmen and ecclesiastics of Europe. They attempted to solve it by determining what was the right ideal and by compelling all members of the community to conform to that ideal. To present any other ideal than the one established by government was a crime punishable with fine, imprisonment, and, in some parts of Europe, with death. The law alike of Roman Catholic Spain and Protestant England in the reign of Philip II. and Queen Elizabeth was conformity. The only difference between the two countries was the ideal to which the people were required to conform and the severity of the punishment by which conformity was enforced.

At that time there were in Holland three equally conscientious and religious factions, bitterly hostile to each other, the Calvinistic, the Lutheran, and the Roman Catholic. The Calvinist abhorred the Lutherans as little better than atheists; the Lutherans abhorred the Calvinists as bigots whose doctrines concerning God were little short of blasphemy; and both united to hate with a religious and conscientious hatred their Roman Catholic fellow-citizens as idolaters and the Pope as anti-Christ. Then it was that William the Silent, the prophet and statesman of the 16th century, arose to offer to the world a solution of their quarrels. My children, he said to them, you can never agree upon any creed, short or long, upon any service, simple or elaborate. You can only agree to disagree. Do this. Respect each other's religious opinions; regard each other's religious prejudices; let each man worship God according to the dictates of his own conscience. And let us all combine for this and only for this—to protect the right of each to believe what he will and to worship as he will. The Pilgrims during their twelve years' residence in the Netherlands learned this lesson and brought it with them to New England. Presbyterian conformity under Cromwell worked as ill as Episcopal conformity under the Stuarts, and conformity was not abandoned until the Revolution brought in William and Mary. But now the entire Protestant world has accepted in the realm of religion the doctrine of William the Silent. We cannot agree in our ideals; we can only agree to treat each other's ideals with respect and to compel by law such measure of public regard for them, and no more, as will leave each man free to follow his own conscience and his own judgment in the realm of religion.

The Principle of Liberty.

What I contend is that this doctrine is as applicable in the realm of ethics as in that of religion. We can no more agree in the ethical than in the religious ideals. We can no more enforce the same ethical ideal than the same religious ideal on a heterogeneous community. It remains for us to follow in ethics the example which we have set in religion: Agree to disagree; agree to regard if we cannot respect each other's ideals; agree to unite in protecting by law the right of every man to follow unhindered his ideal, be it Jewish or Christian, Protestant or Catholic, socialistic or individualistic, so that he does not interfere with the right of his neighbor.

This broad principle of ethical liberty, as true in one sphere as the principle of religious liberty is in the other, I believe we must clearly see and heartily accept if we would secure the same peace in the one realm which we have long since secured in the other. That peace will not come through conformity to one standard; it will come through liberty to adopt many standards.

In applying this principle to modern complex society we must not forget that the right of the individual depends often upon the combined action of the community. The community is itself a unit; it has an organic personality; it has rights to be protected; and it has these rights because the right of the individual in the community depends upon the recognition and freedom of the community rights. In a summer camp or in a great hotel, the right of the individual to sleep depends upon the right of the community to enforce quiet during the hours usually devoted to sleep. No man has a right by his night revels or by a more reputable racket to keep his neighbor awake during the night hours. In this city practically the entire population believes in a Sunday rest; some wish this for worship, others for recreation; we all unite in wishing it. And we have a right to enact and enforce such restrictions as will secure to the worshipper the day for his worship, and to the holiday lover the day for his holiday. In this they must unite; beyond this neither has a right to go. The worshipper has no right to say to the holiday lover: This is a sacred day, you must devote it to sacred uses. The holiday lover has no right to say: This is a junketing day; we will turn it into one great lark, no matter what becomes of your worship. And we act upon this principle. We will run the trolleys for men who wish to go to the park; we forbid the news venders' cries for

the people who wish quiet in their homes and their churches. And we unite by law to prohibit such industries as are necessary neither for the worshipper nor for the holiday lover, because permitted labor under our competitive system becomes compulsory labor, and were it permitted, both worshipper and holiday lover would be deprived of his day.

Application to the Sunday Problem.

The application of this principle to the present problem appears to me very clear, though not practically very simple. It means first of all that no man is to set up his ideal of what he calls temperance and require his neighbor to conform to it—on Sunday or on any other day. It means, second, that no community is to set up its ideal of Sunday rest and require any other community to conform to it. The individual is to determine his own ethical standard and follow his own ethical idea. The local community is to determine its ethical standard and follow its ethical ideal. It is not the object of law to make men do right. It is not the object of law to compel communities to do right. It is not the object of law to compel one community to abstain from doing what is distasteful to another community. It is only the object of law to prevent one community from doing what is injurious to another community.

There are two questions which confront us. We ought to keep them very clearly discriminated:

First: Shall we have the saloons in New York open or closed?

Secondly: Who shall determine whether they shall be open or closed?

In my judgment the question, Who shall determine whether they are to be opened or closed, is immeasurably more important than the question whether they shall be open or closed. Personally, I should be glad to see every saloon in the city of New York closed. Personally, I should rather that every saloon in the city of New York should be open than that it should be closed against the will, the judgment and the conscience of the men who reside in the city of New York.

It devolves on the citizens of the city of New York to determine what our Sunday observance shall be. It does not belong to Orange county, or Herkimer county, or St. Lawrence county. It does not belong to the people of the rural districts to determine

what we shall do with our Sundays. It belongs to those who live here on Manhattan Island. We are wise enough, we are old enough, and we are virtuous enough to decide the question for ourselves. If it is decided wrongly, who suffers the consequences? If ten-room hotels are put into our city, and they become bawdy houses, who suffers the consequences? The people of Herkimer county? Not at all. The people of Manhattan. If the saloons are opened on Sunday, and if as a result our streets become noisy, our Sabbath broken in upon and our homes interfered with, and the light of our metropolis is degraded and pulled down, who suffers the consequences? The people of the city. If we are not wise enough and virtuous enough and do not know enough to keep our saloons closed on Sunday, let us suffer the consequences until we can become wiser, more virtuous and get to understand the conditions of human life better than we understand them now. It is for us to decide the question, not for the Emperor of Russia, not for the King of England and not for the voters of St. Lawrence county.

It is said that the state is the political unit. Within this nation there is no political unit. There are certain great questions as to which the nation is the political unit; for certain other questions, the state; for certain others, the city; for certain others, each one of us is the political unit. When the question comes up, What shall the individual believe and where shall he go to church? the individual is the political unit. The nation has no right, with all its armies at its back and guided by all the wisdom of Congress, to tell a man what he shall believe, or where he shall go to church, or how he shall worship. Why? Because the function of law is to protect the rights of the individual or of the community. Those things which concern only the individual he alone is to determine; those things which concern the locality, the locality alone shall determine; only those things which concern the whole nation is the nation to determine.

Now, who are concerned in the way in which our Sabbath is to be observed in New York city? The people that live in New York city, and practically no one else. Except only by very remote implication are the people of the state affected by it in the least measure. What I stand for then is the right of the people of the city of New York to determine for themselves whether they will have open saloons week days and whether they will have open saloons on Sun-

days. These are questions for us to decide for ourselves, and not for some one else to decide for us.

The Alternatives.

Consider for one moment what is the alternative. It is the present impossible condition of things, or it is an amendment of the present law giving open saloons to the people of the city of New York.

Democracy means primarily the right of the individual to determine his own questions for himself, and the right of the locality to determine its questions for itself. Democracy is local self-government. That is the true essence of American democracy. If the state of New York, through its legislature, imposes on us its ideal of Sunday, it is violating the fundamental principles of democracy, which permit us to carry out our own ideal of Sunday. If it does that by closing saloons when we want them open, it violates our rights; and if it does that by opening our saloons when we want them closed, it still more violates our rights. Something may be said for the doctrine that the individual right to a quiet Sunday is such that the city of New York ought not to have a right to open the saloons; but I have ransacked my brain in vain to find an argument in support of the proposition that if New York city does not want open saloons, the state of New York has the right to impose open saloons on us. To impose an open saloon on a city that does not want it would be ten-fold a grosser violation of home rule than to impose the closed saloon on people who want it open.

The proposition to amend the excise law by providing directly for opening the saloons on Sunday will arouse against it practically the whole clergy and practically all the Christian churches of the state. It will arouse against it, with few exceptions, all the better class of women, mothers and wives and sisters. It will involve against it the protests of thousands of homes throughout the state. The churches may be wrong, and the ministers may be wrong, the mothers may be wrong, the homes may be wrong, and the state may be wrong. In that case this question must be agitated to set them right. But let us not take it for granted that the churches and the ministers and the mothers and the homes are all wrong because we have a theory which runs counter to their conviction.

Personally, I should like to see New York city divided up into localities, election districts, wards, boroughs—what you will—and

each particular district left to determine for itself this problem. But I do not wish to impose upon others any notion of my own. I wish simply to urge this one proposition: That the great city of New York has the right to live out its own life, so long as it does not violate the rights, impair the welfare and injure the prosperity of the rest of the state by its action. We shall suffer from the erroneous decision of this question, however it is decided, and we alone. We shall profit from the right decision of the question, and practically we alone. Therefore, we ought to have the decision of it. We ought to decide whether we will have any saloons or whether we will have Sunday saloons. More important is the question whether this great metropolis shall have the right to its own ideals, to its own conceptions, to its own standards and to its own life.

SUNDAY OPENING BY STATUTE.

By William Travers Jerome.

The views that I have come to advocate are not the views that I wish to advocate. They have been forced upon me against my most earnest conviction. No one has been more deeply impressed with the evils which result from intemperance. I would be willing —if it were possible—to see every saloon closed in the city of New York, and closed for all time. But when one does not sit in the quiet of his study, but is brought face to face with the deadly reality of what laws mean in their actual administration, he is not infrequently led to views that he never would have adopted by any mere *a priori* reflection.

It is scarcely necessary to go into the evils which exist under the present law. The fact that there are 2,167 "hotels" in the city of New York, a very large proportion of which—probably over 80 per cent.—are nothing but houses of assignation; the fact that probably 250,000 inhabitants, at least, go to the saloons and solicit a violation of the law; the fact that probably 7,000 saloons are open every Sunday in this city in defiance of law, and that there are probably from 125,000 to 150,000 people—if you include the women and children—who are dependent upon the retail liquor traffic for their livelihood, on these saloons which violate the law; the fact that during the past four years from $700,000 to $800,000 has been paid to debauch the police force and as blackmail; when these facts—which are susceptible of proof beyond refutation—are considered, it is not necessary to add that the present condition of affairs in regard to the liquor law is absolutely intolerable and must be remedied. It is the part of wise men, therefore, to look for a remedy.

Sunday Closing Attempted.

What is the crux of this question? What is it that keeps the liquor business in politics, debauches our public service and degrades those engaged in the industry as they are degraded in

no other nation in the world? I am satisfied that *it is an unenforceable law.*

But in what does the unenforceability consist? At one time I could not see the answer. I had read, in the writings of those who were supposed to be learned in political philosophy and in the law, that certain classes of laws could not be enforced unless they had public sentiment back of them. I did not believe it. There came a time, however, when Mr. Roosevelt was president of the police board, when Mr. Goff was presiding in Part I. of General Sessions, and when I was in Special Sessions—when we had all the machinery of this community at our disposal. We came together to discuss the problem, and Mr. Goff thought, and Mr. Roosevelt thought, and I thought that there was a positive duty enjoined upon us to enforce the law, and that the reason it could not be enforced was because the authorities upon whom the responsibility of enforcement devolved did not proceed ruthlessly to enforce it. We proceeded to do so.

The saloons were paying $5 a month for the privilege of opening on Sunday when we began our crusade. I sent a woman to the penitentiary (a widow woman with a family dependent upon her) for three months because she sold a glass of beer on Sunday, which instance shows how ruthlessly the law was enforced. But I am satisfied, after careful investigation, that the only result of our joint effort was that during Mr. Roosevelt's administration, the liquor dealers paid for selling on Sunday $10 a month instead of $5. When the reform administration of Mayor Strong was turned out of office, the tariff went back to the old schedule. During the administration of Van Wyck, the saloons paid $5,000 for certain additional privileges to the brewery interests, and the net income to the police was between $700,000 and $800,000 for the privilege extended to the liquor dealers of selling on Sunday.

Why the Law Cannot be Enforced.

After very careful thought, I have reached this conclusion—that the great bulk of the penal statutes are not enforced because of the penalty annexed to them. The law in regard to larceny is enforced because there is no considerable body of people in this community who do not yield willing obedience to that law. The great mass of the people obey that law, not because they expect to be sent to prison if they do not, but because that law commends itself to

them—because they regard the commission of the act of larceny as an immoral act. There is no considerable body in this community to-day who would either commit larceny or solicit others to commit it. Therefore, the comparatively sporadic cases of larceny can be well dealt with.

My experience has led me to believe—supported by the statements of profound thinkers, such as Judge Holmes, of Massachusetts, who develops the same idea in his classical lectures on the Common Law—that wherever there is a considerable body in a community which not only does not yield willing obedience to the law, but which will not yield any obedience, the law prohibiting them from doing that act and from inciting others not only will not be obeyed but cannot be enforced. The law which prohibits the sale of liquor on Sunday in the city of New York is such a law, and cannot generally and absolutely be enforced, for the reason that there are at least 250,000 people in this community who not only do not yield willing obedience to that law, but will yield no obedience to it, and will incite others to violate it.

Law and Morals.

Now, if this proposition is sound, the part of wisdom is not to say that these men must be made to obey that law. It is no argument to say that the thing which they wish to do is a gross immorality. It is not for the criminal law to effect moral reformations in the community. The criminal law often times can assist in moral reformation, but moral reformation, whether it be in regard to liquor or the social evil or gambling, must be effected by moral means.

I do not contend that the opening of saloons during limited hours on Sunday would bring about a perfect state. The opening of saloons on Sunday would bring evils—very serious evils—evils that I do not for one moment attempt to minimize. But it is a question between evils, it is a question whether the evils which would result from opening the saloons during limited hours on Sunday, in accordance with law, would not be less than the evils of having them open the whole Sunday, in contravention of law.

Political Aspects.

The question is a deadly practical one. You have a law which you cannot enforce. I know no man who can speak from his personal experience who is prepared to say that a law closing saloons

on Sunday in New York can be enforced, or who is prepared to say that as long as an unenforceable law of this kind exists, we can be free from the evil of blackma .. We may shift it from the captain to the wardman, from the wardman to the patrolman, or in a variety of ways, but, as long as an unenforceable law exists, that law will be used for the extortion of blackmail, the debauching of the police and the keeping of the saloon in politics. The chief of police, if he be not honest, can control the politics of the saloonkeepers. The moment a reform administration tries to enforce the law, that moment it will go out of power; and if a reform administration does not try to enforce the law, how shall an administration which is supposed to be founded upon its purity keep its own self-respect or the respect of the community?

How shall a man take an oath of office that he will uphold the constitution and the laws of this state and then not endeavor to enforce a law that he knows is violated every Sunday in at least 7,000 places? Liberal enforcement is rot. Liberal enforcement of a penal statute is non-enforcement of a penal statute. And I should prefer the public official who would come out and say, "I have taken an oath of office to uphold these laws, and I am going to violate that oath of office, and leave it to you to justify me," to a public official who would come out and talk to me about liberal enforcement and the extreme of the law being the extreme of injustice. When it comes to a public official individually, as it came to Mr. Roosevelt, that he either must resign his office or continue it under burdens, the honest course is to take it with the burdens and execute the duties of office whether they bring one into disrepute or not. Mr. Roosevelt probably did not approve of the law, but he had taken an oath that he would support that law, and he tried honestly to enforce it. He succeeded gloriously in turning out the Strong administration at the end of its term. That is what will happen in 1903 if this law remains unrepealed. This administration must either violate its oath of office, or attempt to enforce this law, and if it makes an honest effort to enforce the law, it will go out of office. And there will come back a Tammany administration which will not enforce it, taking blackmail for not closing the saloons.

The Proper Remedy.

There is only one thing to be done: to have the saloons

open on Sunday during the most restricted hours in which it is possible to have them open. If the saloons were lawfully allowed to open between one o'clock on Sunday afternoon and eleven o'clock Sunday night, not every saloon would keep closed during the prohibited hours, but when the district attorney and the police force prosecuted them, they could not rely upon public opinion to support them.

To illustrate: I was informed on the best authority that certain brewers were opposed to my proposition, and that the basis of their opposition was this: "By the payment of a moderate sum (to the police) we can now keep open all day, but if we get a law of this kind, the district attorney and chief of police will close us up on the other hours, and, under such a law, we shall only be able to sell from one to eleven. Therefore, it is very unwise for our association to commit itself to this proposition. At present we pay five dollars a saloon per month—sixty dollars a year—which is cheap, compared to what we can make from all-day opening." When this was brought to my attention, I replied: "The brewers ought to be prepared to make some sacrifices in this matter. If such be their argument, I will not tackle the whole brewing industry together, but I will organize my county detective force in such a way that I can come very near to getting any saloon I want, whether the police like it or not. If I find any brewer standing alone on that argument to defeat a reasonable and rational measure, I shall make it my business to go to the saloons he is furnishing with beer, and I have a dim opinion that before ten days go over my head that that particular brewer who was moved by such motives and such arguments, will only sell bottled goods in the city of New York."

I approached the brewers on this subject. And I believe the brewers are honest and acting in good faith in joining the decent citizens in the resolution they passed at my suggestion, in which they said that if such a law were enacted they would throw the whole weight of their influence to see that it was observed, and the liquor dealers—wholesale and retail—have taken the same step. So we have all trades connected with this matter solemnly pledged, and in my opinion in good faith, to obey such a law as I have indicated. I believe that public opinion will be back of such a law, and will support the magistrates, and the police in enforcing such a law. Those who do not want to yield obedience to such a

law will be so few in number we can take care of them adequately. The result will be that the law will be obeyed. The law will not allow the police force to blackmail. The liquor dealer will go out of politics and will vote as his convictions dictate, not at the behest or command of the chief of police.

Local Referendum Impracticable.

Two notions—local option and local referendum—have been advanced as proper remedies. Many have said: "Yes, but this is a great question, and it can be decided by no legislative body; it should be referred to the people."

The trouble with the referendum lies right here. We have democratic institutions, and the essence of democratic institutions, after you get beyond the town meeting, is founded on representative government. The object in selecting representatives is the idea that they are probably a little wiser than the electorate as a whole, that they have more time to thoroughly discuss and investigate problems, and that generally the questions can better be discussed by a small body with time and patience than under the stress of a political campaign. So we do not have our Legislature sit as a committee to prepare bills to submit to us at elections for ratification.

Practically the only measure we refer, or ought to refer, to the people are great changes in the organic government—constitutional changes. And no one has shown that even this has been wise. Take the constitutional amendment submitted to the voters at the last election, an amendment that affected us fundamentally. I venture to say that few men in New York can tell what that constitutional amendment was, and probably not half of them voted on it. The men who voted on that amendment were the ones who had some practical interest or some crank theory about charitable institutions, property, or something of that kind; but the great bulk of the people would have to say, "we did not know that there was a constitutional provision to be voted on, and we did not have any interest in it."

The question is not, however, whether a bare majority of the people want saloons open on Sunday. Indeed, I think a majority of the people, as a personal preference, wouuld not want the saloons open on Sunday. But the question is not whether a bare majority prefers to have the saloons open on Sunday. It is whether the law

which forbids the opening of saloons on Sunday is enforceable; and whether the evils resulting from the opening of saloons during limited hours are not less than from the opening of saloons during unlimited hours. For the plan I propose is a measure for partial closing on Sunday.

Try to frame that question so as to submit it to the electorate, and you will see that not one elector in a thousand will see its true nature. The question actually considered would be: "John, do you want the saloons open on Sunday?" "No, I don't want them open on Sunday." "Then we must vote, no." No matter in what language the question would be submitted, there are not enough persons directly interested to work and fight to get the *real* question before the people. Interest would be difficult to arouse. The only people who would work would be the ministers who opposed it, and they would fill the air with horrid cries. They would raise the cry, "Are you for the saloon or the church?" They would not see the real question involved: the minimization of the evils resulting from an unenforceable law.

I have not the slightest hesitation in saying that if the question of an open saloon were submitted to the people it would be defeated by more than fifty thousand votes, because they would not vote on the question of the minimization of evils but on whether they individually preferred to have the saloons open or closed.

The Question One for the State Legislature.

A local referendum is also objectionable because legislative bodies are chosen for the express purpose of deciding such questions. Representatives are sent to Albany to sit there with their ears to the ground waiting to find out what public opinion is. Thurlow Weed defined a leader as one who followed in advance. That is the task of the legislature. It has the power and the responsibility, and its duty is to determine that which is right in their judgment. I view with the greatest alarm all this advocacy of the introduction of the referendum in countries where we have democratic representative institutions. It is the first step in the direction of letting a legislature send every important question or every one having political significance back to the electorate.

Objections to Local Option by Wards.

Local option for election districts or wards is still more impracticable. There is such a thing as the good will in the saloon

business. Those who drink do not go indiscriminately to any one of three saloons on the corner. They get into the habit of going to one of them, unconsciously perhaps, but because they like the bartender, or because something catches their fancy. The reason may be subtle and metaphysical, but it exists. That establishes the good will of the business, which is just as real an article as "H. O.," just as real a trade mark. Now, is it to be believed that a man living on the north side of Canal street, for example, will close his saloon while the fellow on the south side keeps his open because the people on the north side have local-opted to keep saloons shut?

Immoral Effects of Unenforceable Laws.

In the state of Maine the number of federal stamps sold by the federal authorities for liquor and the number of licenses per capita are as great as those issued in the state of New York. A former chief justice of Maine told a friend of mine—a statistician who was making an investigation—that in his boyhood the people of Maine were law-abiding, God-fearing, but that the operation of the liquor law had turned them into a race of perjurers. I have sat in hundreds of excise cases in the past six and a half years, and I can say with substantial truth that there was not one of those cases (in which there was not a plea of guilty) in which there was not wilful and deliberate perjury committed. I remember a case in General Sessions where the man committed stood before twelve jurors, stepped to the bar and pleaded guilty, and was remanded till next month. He said he did not like it, and he was allowed to change his plea if he would go at once to trial. He changed his plea to "not guilty," went to trial, took the stand himself, and practically admitted the charge. The judge charged the jury to find him guilty. They went out and on the first ballot acquitted him. That may seem to be an extreme case, but these cases are occurring under the law every day. Judges are violating their oaths in the construction of these excise laws in order not to impose the extreme penalty for the doing of an act which public sentiment does not condemn in this city. Jurors are violating their oaths. Perjury is being developed by this law more than any other single thing.

There is another thing which appeals to me with terrific force. Every liquor dealer is low in the social scale. They tell me that their wives lose their social positions because of their husbands' business and that their children are discriminated against, even in

the public schools. There is no more deadly blow you can inflict upon a community than by so ordering your laws that the self-respect of a considerable body of the community is impaired or lost. The dishonorable, the criminal act follows. The enactment of the Raines law has made lawbreakers and has lowered the self-respect of at least 130,000 people. I do not mean to say that a change in these laws would make all respectable; but it would not put them in the position of choosing between their bread and butter and the bread and butter of their wives and children, and respectability.

In conclusion I would say that I believe that a law which would allow the saloons to open from one to eleven on Sunday could be enforced, and that any other law more restrictive cannot be enforced. If you have a law that you cannot enforce, you will have corruption and blackmail, you will have the liquor business in politics, and you will have the degradation of the 130,000 persons who depend upon the liquor business. Now, a reform administration must enforce the law or wilfully violate the oaths of office. If it enforces the law, reform movements generally will be opposed; and if it does not, equally sure will it be put out of power at the end of its term. This is the situation as I understand it. The only remedy that I believe is at all feasible and practical is a law which will allow the saloons to sell from one to eleven o'clock on Sundays. This remedy will not remove all the evils, but there will be fewer evils than under the present system. Sound public sense in public affairs is to be found not in trying to get the ideally perfect but in trying to minimize the evils incident to social life.

SOCIAL FUNCTION OF THE SALOON.

By Felix Adler.

Its Relation to Crime and Pauperism.

Some twenty years ago, one of the leading philanthropists of New York city went on record with the statement that more than seventy per cent. of pauperism and crime is chargeable to intemperance. It appears from the careful investigations of Mr. Charles A. Booth in England and from similar investigations in this country that intemperance is the direct cause of crime in not more than fifteen or sixteen per cent. of the cases, and of pauperism in about one-third of the cases. I do not mean to imply that intemperance is not a most serious and detestable evil; and I will join others in every legitimate attempt to abate that evil. But when we are considering great questions of profound and paramount social interest, we have no right to exaggerate. We have no right to represent one cause of evil as bulging out so much as to throw all other causes into the shadow.

The Demand for a Social Center.

The main point, after all, is whether this law is enforceable. So far as I can see, the only argument in support of the proposition is that we are able to enforce the law to the extent of collecting the tax. Certainly Mr. Roosevelt, Justice Jerome and Judge Goff tried earnestly, and yet failed, to enforce it absolutely. But why is it that a law which is not supported by public sentiment cannot be enforced? Or, rather, why is it that public sentiment in this community does not support that law? Is it a mere whim or caprice of the public or a small portion of the public? If it is a mere whim, we may hope by preaching, by published discussions and by appeals to the public to change public sentiment.

It is not uncommon for temperance extremists to draw a picture of the home—to contrast the amenities of home life on the Sabbath with the disgrace of the saloon. This is the mistake of many per-

sons who argue from a distant point on this question. They speak from the standpoint of people who have homes; they do not realize the conditions of the hundreds of thousands of people who live in this city in tenement houses, in which these delightful amenities are hardly possible. It is a very good thing to stay at home with your family, to improve your mind, to read to them and to enjoy the quiet of the day with them; but how does that fit the case of the man who lives in a double-decker tenement house—a family of a man, woman and children crowded together in two or, at the most, three, dark and uninviting rooms? Are the amenities of home life, of recreation in the midst of one's family possible under such conditions?

I do not mean to say that there are not many equable and fine tempered men among those who live in tenement houses, who despite these conditions strive to keep up the family life. But it is very easy to understand that people who live in such quarters should seek places of recreation—places in which they can be comfortable, and, above all, places where they can meet their fellows. It is the social instinct, the desire to be at ease, which makes men go to clubs; and to-day you observe this increased social instinct among women, a desire increasingly gratified by the increasing number of women's clubs. The desire to satisfy the social instinct and to meet one's fellows without restraint is perfectly natural.

The Saloon is the Poor Man's Club.

Now how can the poor man satisfy this instinct? Where are his clubs? The saloon is at present, the only substitute for a club that he has. I do not say by any means that it is the best; I do not say that it is desirable; but we are miserable hypocrites, if we insist, without supplying a better substitute than the saloon, that the only place where the poor man can have his club shall be closed.

It is a mistake to suppose that all saloons are simply hot beds of vice and bestial intoxication. There are a great many saloons as those who have carefully investigated the conditions in this city know, which do not at all belong in that category, saloons where drunkenness is a rare occurrence, where people meet quietly, take a glass of beer without indulging to excess, and to which they go chiefly, if not wholly, for the purpose of social intercourse. There are saloons for the Italians, the Russians, the Bohemians and others, where those who desire to meet their fellows from the old country

can do so, can hear the news, can talk the language of their childhood.

Other Utilities.

Further, the saloon not infrequently becomes the headquarters of those who are out of work. The man who wants work finds in the saloon a kind of labor bureau, where he can meet with the opportunities for which he is seeking.

The saloon is also the poor man's chief restaurant. Thousands and thousands of people in this city—working people—go to a saloon at noon to get a warm meal. But by far the greater number go for the purpose of being at ease and of throwing off repression. What a load of repression is upon the poor man! Men who are heads of business houses hardly know what repression means. Professional men can hardly realize it. But the workingman is under orders all day long; in the shop, in the factory, in his work, he is under rule, bound to obey. He has an inflexible desire to escape from this repression, and practically the only place where he can do so completely is in the saloon.

Opponents of the saloon should not ignore these facts. It is no answer to a person who wants to go where he is free to say that saloons are open in violation of law. It is a powerful social instinct which supports the saloon. If there is a strong public sentiment that does not support the Sunday closing law, it is because that sentiment is constantly fed, nourished and maintained by this social force, this powerful social instinct, which works especially in a great cosmopolitan city like ours, and makes people seek the companionship of their fellows and patronize the saloon because it ministers to their wants and desires.

Substitutes Needed.

I wish with all my power that it were possible for us to close every saloon in this city, but under condition, however, that it were *first* possible for us to create suitable substitutes. But if I had the power to do that without these substitutes—to close every saloon in this city—I should not use the power to do so.

It has been said that God's Sunday is in the market, and it has been asked what is the price that you wish to pay for it. But is this a fair statement of the position? Do those who favor Sunday opening wish to trample upon the Sabbath and its spiritual purposes? There is no one who desires more earnestly than I do that the Sab-

bath should be used not only for comfortable recreation, but for moral and spiritual advancement. But is it for the honor of God's Sabbath that two hundred and fifty thousand people should sneak in at the side doors? Is it to the honor of God's Sabbath that the outside of the platter should be made clean and within all be evil, filth and corruption? We are too apt to be Pharisaical in regard to this matter—to be perfectly content if we are spared the shock to our sensibilities.

I have come to this position very reluctantly. I had the same horror of the saloon that so many have. I have the same desire to see them effaced, if we can have a better substitute; but one of the most practical and effective means of getting this substitute is to have the evil out in the open. There all are conscious of the evil. If the saloons ply their trade openly on the Sabbath, not only the churches but all the people will work far more assiduously than ever before to provide a suitable alternative for the saloon.

The practical conclusions are, therefore, that the present situation is intolerable. The present administration is between Scylla and Charybdis. It has either to violate its solemn oath of office, go to political destruction or have the law amended. What shall the remedy be? Shall it be the partial closing of the saloon?

To say that we want the opening of the saloon is false and misleading. Our campaign is for partial closing. The saloons are open all day at the present time. We want them closed between midnight of Saturday and one o'clock on Sunday.

As to home rule, representative government is appropriate for all matters concerning the state at large; but the proposition to refer this question, that touches the city of New York, to the people of the state of New York, is similar to the question of referring to a family council whether a son who has attained his majority, and who is capable of taking his destiny into his own hands, shall enter into a marriage alliance. That is a question which concerns himself; and, therefore, although it may be proper to consult with others, it is for him to decide. And so with the question of referendum in this case. It is not a question which belongs to the people of the state of New York or to their representatives in the legislature. It is a question which concerns this locality, and this locality should decide it.

It is held that the people will vote against it, but it is better that the people should vote against what we may consider to be their best interests, and be gradually instructed as to their true interests, than that the principle of home rule should be sacrificed for any immediate gain, no matter how important it may seem.

Let us have an educational campaign. Let us begin this day. Let us make the people see it. They will understand the issue.

CITY GOVERNMENT AND THE PEOPLE.

By Robert Fulton Cutting.

The success of the last campaign has conclusively demonstrated the usefulness of the Citizens' Union, and it is due to it that some reference should be made to its earlier and generally unappreciated services.

DOWN WITH THE SPOILS SYSTEM.

Many of you will remember that at the initiatory meeting in February, 1897, the Hon. Elihu Root declared his profound conviction that a determined effort was necessary to save the national parties from the demoralization inevitably consequent upon municipal spoilation, and as a Republican, jealous for the welfare and reputation of his party, he advocated the foundation of a non-partisan civic movement. It cannot be denied that the possibility of plunder in city administration is the venom fang from which the fatal virus penetrates to the extremities of the partisan body. The famous exclamation of Blucher upon the occasion of his visit to London, "What a city to sack!" has long expressed the philosophy of American partisan leaders. When Jackson declared that the division of offices among the victors was a cardinal doctrine of the Democratic-Republican party, he was only extending to national politics a system already well developed in cities, and even at that time New York was wholly sacrificed to the interests of the Anti-Federal party. It is true that the spoilsman of that early period was not the common plunderer of to-day, yet we unquestionably owe Crokerism to the system instituted in the city by De Witt Clinton in the first decade of the century.

In this respect, then, has not the Citizens' Union rendered emphatic service to the State and Nation, and fulfilled the far-seeing purposes of its founders? For is it not undeniable that the Republican party has felt the chastening influence of the movement of '97, and relinquishing the lust for city plunder, purified its intentions and its practices? While, therefore, the Citizens' Union has been laboring to save the city from the partisan, it has saved the partisan from the city. Is it too much to hope that what it has accomplished for the Republican party it may also accomplish for the Democratic? Are there not, indeed, significant evidences abroad that encourage the expectation that the next Democratic county and borough tickets will be purged of their Van Wycks and Ungers? In my judgment this feature of the Union's work is more important even than the direct benefit of rescuing the municipality from the spoilsman for its own sake. The public does not realize the extent to which the spoils system has affected the electorate, but the most limited experience in active politics discloses the stifling influence upon patriotism of a principle which transforms the service of the people into a money-getting occupation.

In the days of the patriot fathers, when population was scattered and the cities had not commenced to exercise their malevolent influence upon political life, the introduction of a spoils system was deemed impossible. In Washington's first administration a debate took place in Congress concerning the power of appointment of the president. It was argued that a designing man might employ the

power for private ends. The discussion was closed by Madison, who pointed out that the Constitution covered the contingency, as it provided that any president who thus abused his office could be impeached. But from the days of Jackson until the agitation for the merit system, spoilation created little comment and raised no opposition. If we would rekindle the patriotism of our electorate and educate the rising generation to a sense of civic obligation, we must do it through the influence of non-partisan municipal organizations that will eliminate the plunder of the city as an aim of national partisanship. Then and then only can we hope to see our young men growing up to the ideal of Pope's characterization of Addison:

"Statesman yet friend of truth; of Soul sincere;
In action faithful and in honor clear;
Who broke no promise, served no private end,
Who gained no title and who lost no friend."

NON-PARTISAN MOVEMENTS MUST BE POPULAR.

But there is still another phase of the Citizens' Union philosophy, if I may so call it, of equally profound significance. The founders of the organization declared it must be popular and not exclusive. Their proposition ran as follows. I quote from the report of the original Plan and Scope Committee:

"The organization required for this work must have a broader basis than any self-constituted committee or any committee constituted by a comparatively small body drawn chiefly from the wealthy portion of the community, such as the Chamber of Commerce or the City Club. It must fairly represent the various interests and conditions which exist among the voters of the city. It should, at the time of its first public appearance, rest upon a broad basis of popular authority and act upon the mandate of so great a body of voters that its momentum cannot be checked by falsehood or ridicule and its possibilities of success cannot be ignored."

To these principles the Union has endeavored to adhere, although they constituted a radical departure from all earlier reform movements. In the past it was always the custom for a few men to select what they considered to be a representative committee, into whose hands was committed the conduct of the campaign. In these committees the wage-earners or their chosen spoksmen have always been conspicuous by their absence. The responsibility for this misfortune, for such it was, does not lie wholly with the leaders of the movements, for they found themselves unable to overcome the suspicion of their motives by the wage-earners. Reform, therefore, in the past, has savored more of oligarchy than democracy, and has failed to embody the principle of popular sovereignty upon which rests the edifice of American institutions.

The Union aims at nothing less than the honest endeavor to practice the political principles that we profess. It aims to bring together men of varying views but like sincerity, whose patriotism is broader than their personal opinions and whose consideration for one another makes it possible to find common ground. There are those who tell us that without a boss this is both impracticable and dangerous. Albeit it is the very ground upon which our forefathers chose to rear the edifice of national life. In every age since the world was young the few have dreaded the increase of power among the many, but history has not justified their apprehensions. Rather has it taught us the lesson confirmed by the experience of New York politics, that the few are more dangerous than the many.

In an address on the present age, delivered nearly seventy years ago to the

merchants of Philadelphia by that great American, William Ellery Channing, this issue is so forcibly put that I cannot so well represent my own views as by quoting briefly from it. I do so, moreover, in the hope it will induce many of you to read the masterly essay in its entirety:

"There are, however, those who have painful fears of evil from the restless, earnest action which we have seen spreading itself more and more through all departments of society. They call the age wild, lawless, presumptuous, without reverence. All men, they tell us, are bursting their spheres, quitting their ranks, aspiring selfishly after gain and pre-eminence. . . . Such are the alarms of not a few; and it is right that fear should utter its prophecies as well as hope. But it is the true office of fear to give a wise direction to human effort, not to chill or destroy it. What I most lament in these apprehensions is the utter distrust of human nature which they discover. Its highest powers are thought to be given only to be restrained. They are thought to be safe only when in fetters. Human nature is not a tiger which needs a constant chain. In this case it is the chain which makes the tiger. . . . The manual laborer has burdens enough to bear without the load of groundless suspicion or reproach. It ought to be understood that the great enemies to society are not found in its poorer ranks. The mass may, indeed, be used as tools; but the stirring and guiding powers of insurrection are found above. Communities fall by the vices of the prosperous ranks."

Gentlemen, the wage-earner of New York is not dangerous, but distrust may make him so. If he is suspicious it is because he is suspected. The Citizens' Union has not distrusted him, and he has responded to our confidence. It remains for us to demonstrate that his confidence will not be abused and that we want not his vote, but himself. But popular sovereignty is no talisman to transmute character, and the professional politician, the self-seeking demagogue, the irreconcilable visionary are not converted into useful citizens by enrollment in the Citizns' Union. It is our deliberate intention to exclude such from the ranks, and the purging of our rolls has already commenced. We have become, then, as our founders contemplated, an organization of men of many views, but, as we believe, of single-hearted purpose. It is such an organization, and only such a one, that can create the civic spirit, the existence of which is necessary to secure the permanence of good government. The local public opinion which should decide the issues of municipal government is not to-day expressed by either national party. But public opinion, to be made effective, must be organized. The old Federal party, despite the brilliant talents and lofty patriotism of its leaders, succumbed to the party of Jefferson because it had no organization in touch with the people, while the latter through the local patriot societies had struck its root deep down into the subsoil of the electorate.

For years and years we have had so little in our civic life to kindle public spirit that as a general principle it is practically non-existent. The sentiment of the citizen toward the municipality has been one of shame, deepening occasionally into indignation. But indignation has no constructive power—it is negative and of temporary value only. It may disclose the tremendous energy of an earthquake, but not the steady flow of the river. Public indignation will play no part in the campaign of 1903, and nothing but local pride in administration will supply the winning element of public opinion. The Union aims to become the instrumentality for the effective expression of that opinion.

SOCIAL BETTERMENT.

But local pride can only be cultivated by a policy of administration that brings the benefits of good government home to the people and makes them feel its benefi-

cent touch. Authority must be popularized by a reasonable exercise of its unequaled powers of social betterment. The self-consciousness of the community must be awakened by frequent object lessons of the direct relation of the administration to the voter. We have lately enjoyed in this city a luminous illustration of the latter policy. The lamented Waring did more to kindle civic spirit in this city than any other who has held office in the memory of this generation. The fundamental significance of Waring's work was that he was acting as the direct agent of the city, and as such was daily bringing to the doors and eyes of every citizen the gratifying evidence of the efficiency and solicitude for their welfare of their chosen administrator.

The "White Wing" brigade and its illustrious founder were in the mind of the Citizens' Union when it advocated a judicious increase of direct employment by the city. Waring's work was expensive, partly because he had to lay costly foundations upon which to build, and partly because he had the courage to pursue his convictions of the value of his work, but no economies that might have been practiced by employing contract labor in his place would have compensated for the loss of the invaluable object lesson he gave to this community. As it happened, at the very moment when Waring was making his brilliant record, the city of Brooklyn was cleaning its streets by the contract system. In 1895 the system proved more expensive than the direct employment of Waring, and a heroic effort was made to overcome the difference. It was done and the contractor who secured the job made his profit by employing labor twelve hours out of every twenty-four and at the rate of $1.25 per day. We have reason to be thankful that our present mayor would never tolerate a policy of economy that expressed itself in such conditions.

But there is another feature of the civic administration that has for at least half a century afforded a striking illustration of the beneficial effects of administrative contact with the people. The department of public education is in continual touch with domestic life. It penetrates to the fireside and is the people's own agency for promoting the realization of parental hope. While during the period that I have mentioned it has not always reached the highest level, has suffered from abuses and disclosed some scandals, it has, nevertheless, continuously maintained a higher standard of efficiency and integrity than any other department of the city government. It is too close to the people to permit of its prostitution to the interests of partisanship. Directly and indirectly, it is a school of citizenship for parents as well as children. The very cost of giving to our public school buildings a graceful and dignified architectural effect is an investment in the interests of good government, and that not because of its æsthetic influence, but rather because of the pride awakened by the beauty of a civic monument that is peculiarly the people's own.

LOCAL PARTIES AND POLICIES.

It is impossible for the national parties to bring local government home to the people, for so long as the spoilsman presides in their councils, just so long will it be impossible to reconcile the interests of the party with the interests of the municipality. Moreover, the irrelevance of national issues makes them measurably aliens in city affairs.

It is largely due to the fact that the Democratic party in this city is essentially a local organization that it completely outstrips its great rival in home politics. To compete, then, with the dominant political party on its own ground there must be a local organization with a local policy. It is the Citizens' Union against Tammany

Hall. That this proposition in no sense excludes national parties from co-operating in local politics is evident from the experience in the last campaign, and the patriotic service rendered by the Republican party determined the issue of the struggle. It is, however, the very superiority of its fidelity to national aims that handicaps that party in contesting with a local society that knows no real aim or policy other than the control of municipal administration.

It is, then, the purpose of the Citizens' Union to persistently advocate a policy that will bring government home to the people and make them realize it is theirs—a policy that will kindle enthusiasm as it reveals the possibility inherent in the employment of the city's own resources in the service of the people. A policy that demands the infusion in the anæmic blood of our earlier reform administrations of a few red drops of what the reactionary insists upon stigmatizing as radicalism.

"Greece," said Frederic Harrison, "taught us the noble lesson of individual liberty, but Rome the far nobler lesson of the sense of social duty." We have been slow to learn that lesson. It is true that the peculiar development of our political life growing out of the spoils system has excluded many of our best and ablest. Unwilling to yield their convictions to the tryanny of the caucus and the boss, they have turned their generous impulses into the channels of charitable and industrial effort and have been measurably lost to the broader philanthropy of public service.

Never before has government been so instinct with kindness. It has become apparent that politics is more than business—it is humanity; that "the people" is not an abstract term—it is flesh and blood, man and woman; and in the service of the state the lover of his kind may find abundant scope for the exercise of the noblest ambition.

There is a swelling tide of human brotherhood that seeks to express itself through democratic institutions, and the religion of the twentieth century is destined to employ government as one of its principal instrumentalities for the solution of social issues. We shall have a true democracy based upon the fundamental value of the individual, and that will never succumb to the fatal blight of socialism.

The sun is rising and the time is not so far distant when the politician will be merged in the reformer, and the partisan will be as one with the Hebrew prophet in his apostrophe:

"He that despiseth the gain of oppressions, that shaketh his hands from holding of bribes, that stoppeth his ears from the hearing of blood and shutteth his eyes from looking upon evil; he shall dwell on high."

THE PIRACY OF PUBLIC FRANCHISES.

By R. R. Bowker.

[Note.—Reprinted from the Atlantic Monthly for October, 1901.]

The surface railway facilities in New York (boroughs of Manhattan and the Bronx), and its supply of gas and electricity, are now in the hands of two great corporations, behind which is one group or alliance of men. These corporations represent an actual outlay probably well within $125,000,000, for systems which could be replaced to-day, probably, for less than $100,000,000, while their nominal capitalization, share and loan, excluding securities of consolidated companies held in the treasury of the controlling company, is over $300,000,000, and the market value of their securities is above $400,000,000. The enormous difference between cost and market value represents roughly, if not accurately, the value of the franchises "promoted" out of the people's possession into private pockets,—in large part not of those whose foresight, investment, and skill have developed the present facilities, but of those who, with the double leverage of "politics" and "financing," have become possessed in recent years of these franchise privileges. The story of how the street railway franchises in New York have been one by one obtained, and at last welded into a unified monopoly; how the gas companies, by various processes of peace and war, have been brought into final combination; how the leading electric corporation was captured by the gas interests; and how, finally, within the year past, all these enterprises have come under the same control, would easily fill volumes, but the brief statement here presented may throw some light on one of the chief municipal problems of the day.

Most New Yorkers of middle age remember the lumbering ten-cent "stage," seating ten and "strapping" more, such as that which, after emerging from the usual blockade at Fulton street, over which a footbridge afforded safe passage, rumbled for a weary hour along Broadway as far as Thirty-fourth street, whence another started occasionally up Bloomingdale road to Manhattanville; and the primitive six-cent "street car" on Sixth and Eighth avenues,—some of the one-horse "bobtail" order, some with the legend "Negroes allowed in this car," a few with a placard "Heated,"—which, with those of the "Harlem Extension" down Fourth avenue, used alike for freight cars and street cars, and the other avenue lines, furnished the chief means of transportation in the days "before the war," and for some time thereafter. The present Metropolitan Street Railway, consolidating many separate lines into a single service, with marvelous engineering feats of reconstruction, excellently operated, as rapid as surface conditions permit, with cars well lighted, well heated, and comfortable, though chronically overcrowded, and an almost universal transfer system for a five-cent fare, affords such superior facilities that citizens are ready to forget or condone the steps by which charters have been obtained and consolidations effected, and to overlook the possibilities of still better facilities, lower fares, or reduced taxes, that might have been or might yet be, if the people, as the municipality, recover their rights in the streets, and properly control the

operating companies which should lease street privileges. The popular rumor that this company paid $750,000 secretly for illicit privileges which it failed to get through the Eldridge bill of 1898, vetoed by Governor Black, cannot, of course, be verified, and is perhaps not true in this form; but that it is believed is in itself significant, and it is probably true that large considerations were indirectly paid to keep hands off and eyes shut while the "combine" of capitalists behind the railway company was getting its grip on most of the public utilities of New York. Among these the master spirit is ex-Secretary William C. Whitney, who, like Richard Croker in the municipality, holds no official position and has no stated responsibility in his company, since, as stated in a laudatory article on the company in the *New York Times* for November 20, 1898, "for reasons of his own, he withdrew from the board of directors two or three years ago. But his wishes find expression in every important act of the board." "With Mr. Whitney as the subtle, often invisible director," wrote a correspondent of the *Philadelphia Press,* December 6, 1898, "the corporation grew to majestic proportions. He apparently bore about the same relations to it that he did to Tammany Hall, of which, although not a member, he was, nevertheless, through men who respected his authority, the controlling influence."

The New York and Harlem Railroad had been chartered by special act of the legislature in 1831, and the common council granted it permission to lay its tracks southward from the Harlem River, by successive resolutions from 1832 to 1852, in which year it reached the City Hall Park. This was the first street railway in New York, and no compensation was given for the franchise—except, according to rumor, to legislators and common councilmen—until in 1872 the legislative grant for the extension exacted five per cent. of gross receipts on Madison avenue above Seventy-ninth street. It required much pressure from 1854 to 1858 to replace steam with horses below Forty-second street, and the common council complained by resolution that the company had defied it, had refused to obey its ordinances, and was using paid agents at Albany to circumvent it. The Sixth and Eighth avenue franchises were granted in 1851-52, also without compensation,—though Comptroller Flagg, in a special message, urged that the companies should at least be required to pave and clean the streets they used,—but the roads were not to be assigned without consent of the common council, and were to be surrendered to the city on demand at ten per cent. advance on cost. Franchises for Third avenue,—to a ring of stage-owners and politicians,—for Second avenue, and for Ninth avenue were successively granted, with trivial conditions of protection to the city. In 1853 came a general exposé, on charges initiated by an outraged lobbyist, who thought it was not fair play that the common council should take $20,000 for a charter from one set of people, and then, for $50,000, revoke its action in favor of another. The grand jury obtained direct confessions of payments to bribe aldermen,—Tweed appearing on the scene in this connection,—but the charters remained intact.

Broadway had always been the golden goal of the charter-grabbers, and, also in 1852, Jacob Sharp and others obtained authorization for a Broadway railroad from the aldermen and assistant aldermen, without compensation to the city, notwithstanding various competing offers of $1,000,000, of $100,000 a year for ten years, of $1,000 instead of $20 license for each car, of one cent for each passenger carried, or of a three-cent fare. This grant was repassed over Mayor Kingsland's veto, in the face of an injunction from Judge Campbell, and was checkmated only by the punishment of the aldermen for contempt of court, after a legal contest finally settled in the Court of Appeals. In 1859 an attempt to "parallel Broadway" took the shape

of the "Yonkers road," which, by beginning in Westchester County, was to avoid the restriction upon railroads "commencing and ending within the city limits." For this the common council raced a permit through both branches December 7, 1859, before the meeting of the legislature in January should give the Albany lobbyists a chance at the job, and only Mayor Tiemann's veto saved the city. The ensuing legislature took from the "common scoundrels," as they were called, the right to grant street railway franchises, and the seat of corruption was transferred, for a time, from the City Hall to the state Capitol. Various other attempts on Broadway were defeated, until in 1884—when the first general surface railway law was passed, with a proviso that three per cent., and ultimately five per cent., of gross receipts should be paid the city—Jacob Sharp and his associates of the Broadway Surface Railroad Company procured the Broadway franchise from the "boodle board" of aldermen, two of whom were sentenced to the state prison for bribery, while Sharp, also convicted, died pending a retrial ordered on appeal. In 1886 the legislature annulled the charter of the company; but the Court of Appeals, in the O'Brien case, held that the right in the street granted by the city was perpetual and indefeasible, and hence that it survived the corporation, and vested in the directors as trustees for the creditors and shareholders. This decision, counter to the common rule that stolen goods may be recovered by the owner, gave an extraordinary force to the adage that "possession is nine points of the law," and put a premium on the corrupt or brutal overbearing by corporations of the public or private rights; and it has yet to be overcome by that application of common sense to new conditions which constitutes the evolution of law.

Up to 1889-90 the many cross-town lines which had obtained charters, as well as the older lines lengthwise of the city, had been independently operated, exclusively by horse power. At that date the New York situation attracted the attention of the Widener-Elkins Philadelphia syndicate of street railway promoters, whose combination with the Whitney interests has resulted in the unified system of to-day—a system as creditable in its operation as it has been the contrary in other respects. The first step was the incorporation of the Metropolitan Cross-Town Railway, which acquired a cross-town line whose charter permitted it to lease or consolidate with other roads. About the same time the Metropolitan Traction Company was organized in New Jersey; in 1892 this was reincorporated in New York; and in 1893 the Metropolitan Street Railway Company was incorporated in New York and became the operating company for the Traction Company, which owned its $30,000,000 stock. Meanwhile, by purchase, by lease, by control of securities, consolidations were going on, and in 1897 the Traction Company was dissolved, its shareholders receiving share for share of Street Railway stock and a premium in debenture bonds; and the Metropolitan Cross-Town, the Broadway Surface, and other companies were finally merged in the Metropolitan Street Railway Company, whose only considerable rival was the Third Avenue Railroad, with its subsidiary lines. During this period, changes of motive power—from horse to cable, from cable to electricity—were going on; but the city secured little pecuniary advantage, the minimum of $150,000 per year offered by the Broadway road as a premium for the change to cable proving to be no more than it would presently have been obliged to pay as the five per cent. of its gross receipts. To safeguard the city, the Cantor act of 1886 had provided for the sale of new franchises at auction, with a minimum price of five per cent. of gross receipts; but the politicians who organized the Union Railway Company, called the "huckleberry road" because of the sparsely settled suburbs it traversed, evaded this law by obtaining special acts, and a $2,000,000 franchise, of which the Third Avenue Railroad became possessed, yielded the city

nothing. A franchise for Lenox avenue, separated from Sixth avenue by the two and a half miles of Central Park, was granted to the Metropolitan Company without compensation, under the guise of a "requirement" that it should extend its Sixth avenue line. For other extensions in the northern part of the city there was fierce rivalry between the Metropolitan and Third Avenue companies, resulting in charges and counter-charges of corruption, and in the laying of four tracks on Amsterdam avenue, to the intense indignation of its residents. When, under the law, a small extension privilege was offered at auction, a third bidder, the People's Traction Company, offered the entire gross receipts, and afterward several times these—a mystery which has never been altogether solved.

The Metropolitan Company was understood to be "in with" Tammany, and the Third Avenue with Republican politicians; but when the Third Avenue line was retransformed from cable to electric traction, Tammany's power was sufficient to require this company to cancel a contract for reconstruction which it had made, and give a new contract, at an increased price, to a politician contractor who was chairman of one of the Tammany committees. The Third Avenue Company, reeking with jobbery, came rapidly to its decline and fall; the Metropolitan Company expressed unwillingness to assume its burdens; efforts to finance it met with many difficulties; at last came a crash, in which its shares, which in 1899 had ranged from 242 to 117¾, fell, on March 2, 1900, to 45¼. Ex-Mayor Hugh J. Grant, formerly a Tammany magnate, was appointed receiver; and when the stock recovered it was found that the Metropolitan Railway interests held a majority of the shares. About $9,000,000 of the stock is now held in the Metropolitan treasury, assuring control, and $50,000,000 bonds on the Third Avenue property, virtually guaranteed by the Metropolitan Company, are in process of issue. This has been the final *coup* by which the Metropolitan Street Railway Company has obtained the monopoly of surface railways in the boroughs of Manhattan and the Bronx. It has now a capitalization of $45,000,000 stock, ruling at about 170, aside from about $18,000,000 stock in controlled lines (including Third Avenue) not in its treasury, and above $90,000,000 bonds (including $40,000,000 of the guaranteed Third Avenue bonds); representing, roughly, a market value of at least $200,000,000. The ablest administrative ability has been enlisted in this service; economies and improvements have been everywhere effected; the results accomplished have been marvelous, indeed; and if the end justifies the means, the promoters have reason to be pleased with their work.

The Manhattan Elevated Railroad Company, into which were merged, in 1879, both the New York and the Metropolitan elevated railroads, initiated in 1875, has reached, with the usual processes of stock manipulation and multiplication, a capitalization of $48,000,000 stock and $40,000,000 bonds, having a market value, approximately, of $100,000,000; but it has not yet been brought into the general fold, and the alliance prophesied by a traffic agreement with the Third Avenue surface road, made in 1899, for transfers from one system to the other for a supplementary three-cent fare, has come to little. The company enjoyed many facilities through a good understanding with "the powers that be," until its president, George J. Gould, declined to concede to Richard Croker for his Auto-Truck Company the privilege of laying pneumatic tubes along the elevated structure. A picturesque account of an interview between Mr. Gould and Mr. Croker was made public, and a simultaneous and concentrated cross-fire from the city authorities upon the company began. The Park Commissioners notified the company to remove its structure from Battery Park; the Health Department discovered that the supports were in unsafe and dangerous condition; and ordinances proposed in the municipal assembly required

the company to inclose its stations in glass and place drip pans under its structure, to operate trains on five-minute headway throughout the twenty-four hours, under $100 penalty for each omission, and to give up its revenues from newspaper stands and advertising. A renewal of friendly relations averted the threatened dangers; but effective notice was given to other companies of the treatment to be expected in case they failed to conform with the desires of the ruling powers.

When gas began to supplant oil for lighting, the New York Gas Company, organized in 1823, with a capital of $1,000,000, was given exclusive rights for thirty years in the built-up part of the city, and supplied gas at $10 the thousand cubic feet. A dozen gas companies have since been formed—some confined by charter or by agreement to specified parts of the city, others organized for purposes of competition—whose history has been a confused tangle of asserted corruption, rivalry, "gas wars," pooling, consolidation, overcapitalization, protests from consumers, movements for a municipal plant, improvements in manufacture, appeals to the legislature, and reductions of price, mostly in obedience to legislative requirement. In 1884, the New York, Manhattan, Mutual, Harlem, Metropoltian, Municipal, and Knickerbocker companies, which had formed a pool maintaining prices at $2.25, were merged into the Consolidated Gas Company, with a nominal capital of $45,000,000, but with "less than $20,000,000 actual investment," according to the Thomas Committee's report to the legislature in 1885. The company itself valued the combined franchises at $7,781,000, for which practically nothing had been paid to the city. The Mutual Company, because of a provision in its charter which forbade combination, was obliged to withdraw from the Consolidated Company, and the proposed capitalization was reduced accordingly; but it was understood that a controlling interest in the $3,500,000 stock of the Mutual Company passed to the Consolidated Company or its leading stockholders. The Equitable Gas Company was organized in 1882, to compete with these companies, and supplied gas in 1884 at $1.75; and in 1885 still another rival, the Standard Company, was incorporated. The grant to this company raised so great a scandal that the legislature, in 1886, in a spasm of virtue, reduced prices to $1.25 per thousand feet. In 1894 a new corporation, the East River Gas Company, obtained a franchise to lay its mains in New York, and to build a tunnel under the East River to bring gas from the Long Island side, for which it was to pay three per cent. of its gross receipts. All these companies maintained prices at the maximum legal rate of $1.25, but were in furious competition in supplying apparatus gratis, until November, 1896, when another pool was formed, the business parceled out, and the competing agents discharged. These employees took their revenge by holding a mass meeting at Cooper Institute, December 31, 1896, at which they started an agitation for a municipal plant and for "dollar gas." The fighting was now transferred to the legislature, which, despite the efforts of the gas companies, reduced the price to $1,20 for 1897, and 5 cents each year thereafter until "dollar gas" should be reached in 1901.

In January, 1898, the East River and Equitable companies were brought together into the New Amsterdam Gas Company, having a capitalization of $21,000,000 stock and $20,750,000 bonds, with Anthony N. Brady at its head. The Standard Company maintained its identity, having a capitalization of $8,721,000 stock and $1,362,000 bonds, with Russell Sage as president, while the Consolidated Company still held the lead in the gas situation with a capital of $39,078,000 and $2,158,000 floating indebtedness. The three companies had together a total capitalization, share and loan, approximating $100,000,000, and probably exceeding that amount if the stocks and bonds of merged or controlled companies were included. An Astoria

Gas, Heat, Light, and Power Company had been organized, which also was to supply gas through a tunnel under the East River, and which was granted questionable privileges; but this was understood to be an enterprise of one of the existing companies, incidental to the gas war which presently ensued.

An endeavor to force further consolidation resulted in 1899 in a "rate war," which cut prices from $1.10 to 65 cents, and later to 50 cents, per thousand feet. This war lasted until March, 1900, when, as the result of the combination meantime effected, former rates were resumed—to the sorrow of the consuming public—the Brady interests having been brought into line with the Consolidated Gas Company; Russell Sage having been deposed from the presidency of the Standard Company, and the voting power of the majority of its stock put in the hands of a protective committee, also in the interests of the Consolidated Company. Thus unification of the gas interests became an accomplished fact.

Electric lighting had begun in New York before 1880 with the arc lights of the Brush Company, though the aldermanic permit granting a franchise was not secured until May 3, 1881, at which time, also, a like franchise was given to the United States Illuminating Company—the two companies afterward associated under Westinghouse control. Both these, in common with all other companies then existing, used overhead conductors and the high-tension current, and it was generally asserted by electrical authorities that the electric current could not be conveyed underground. Meantime, Edison had worked out his incandescent lamp—stimulated at the start, curiously enough, by a quarrel over the bills of a gas company—and had successfully attacked the problem of an underground system of conductors. The Edison Electric Light Company, afterward merged into the General Electric Company, had been organized in 1878 to develop the Edison system, and, under royalty arrangements with it, the Edison Electric Illuminating Company of New York was organized December 17, 1880, and obtained on April 10, 1881, the first aldermanic permit for an electrical franchise within the limits of New York.

For some years New York was the battleground of the fierce contest between the high-tension overhead-wire arc-lamp systems, represented chiefly by the Westinghouse interests, and the low-tension underground-conductor incandescent Edison system. The public authorities, stimulated by an indignant public opinion over the fatal accidents from overhead wires, obtained from the legislature in 1885 an act creating a Board of Commissioners of Electrical Subways, which was to require the placing of all wires underground. In a supplementary act of 1887, giving this body increased powers under the new name of the Board of Electrical Control, an agreement made between the Board and the Consolidated Telegraph and Electrical Subway Company was specifically ratified and confirmed. This company had been organized as a quasi-public corporation with private capital, as the agent of the city to furnish underground conduits which should be rented to the electric-lighting companies under rentals to be regulated by the Board of Electrical Control, and in which all electric-lighting companies should be obligatory tenants. The politicians saw in this a great opportunity, but the capital required was so large as to be beyond their possibilities, and the Subway Company was ultimately financed by the telephone and Edison interests. In 1887 and subsequent years, the boom given to electric lighting resulted in the organization of a number of minor companies, nine authorizations having been granted in 1887-88 by the common council, and still others later by the Board of Electrical Control—all the new companies using overhead wires and high-tension systems. The contest between the city authorities and the overhead-wire companies was waged with great waste of capital on the part of the companies, until the city was finally successful in abolishing the poles in 1892.

Meantime, in 1891, the telegraph and telephone cables and the Edison low-tension conductors had been put, by permissive legislation, under the jurisdiction of a subway company known as the Empire City Subway Company, exclusively owned by the interests which nominally leased the low-tension subways, leaving to the Consolidated Subway Company of which the telephone interests were the main owners, the control and the burden of the high-tension conduits. The high-tension companies, though spared the investment necessary to build subways for themselves, complained bitterly of the situation, which was certainly anomalous. Not the city, but a private corporation, with the power of the city behind it, provided all the subways, at rates fixed by the Board of Electrical Control, and although the situation was not misused as was claimed, it seemed to invite misuse against any companies not personæ gratæ. The minor companies, organized on an inadequate basis, were not financially successful. The Edison interests purchased three of them—the Manhattan and the Harlem companies, practically one system, from their original promoters, at about cost, and later, after a bankruptcy reorganization, the East River Company, supplementing that system—as a competing arm in case of a threatened "rate war;" but proffers of the other companies and of the high-tension subways were declined. The multiplication and division of high-tension companies, in fact, gave the Edison low-tension company opportunity for perhaps larger success than as a monopoly.

The electrical situation in New York had attracted the attention of many promoters, and particularly of Anthony N. Brady, one of those remarkable "self-made" men, more frequent in America than in any other country, who by sheer force of native ability overcome opposing circumstances and make their mark in affairs. This type, when it works toward good ends and is not unscrupulous in method, is creditable in the highest degree, but contrariwise it is the material of the boss. Mr. Brady, who rose from humble occupations in Albany, there attracted the favorable notice of Governor Flower, and the relationship between the two lasted in reciprocal loyalty until Governor Flower's death, in May, 1899. Mr. Brady took hold of an unsuccessful mining enterprise in which many Albany people had lost money; his handling brought the stock up to par, and thus began his career as a promoter and financier. He had come into relation with electric interests in Albany, and through the North River Electric Light Company, occupying the streets north of the Harlem River, had been brought into touch with the electrical situation in New York. With the final purpose of securing control in Manhattan, he first turned his attention to the conditions across the East River, where the Edison Electric Illuminating Company of Brooklyn had obtained practically a monopoly of electric lighting in that borough. The Citizens' Electric Light Company, organized during the heydays of the McLaughlin ring, as one means of sharing the spoils, had stolen water from the city through an unrecorded water main, had obtained much of the public lighting, and had practically used up its old machinery in an obsolete central station. The Brooklyn Edison Company had purchased and bettered this system, and was also taking over the so-called Municipal Electric Light Company—a private corporation, which had a rival system in the eastern district of Brooklyn. In 1897 Mr. Brady and his associates organized the Kings County Electric Light and Power Company, and proceeded to announce great plans, to build a waterside station, and to lay some miles of conduits in the principal streets, the Subway Company's exclusive privilege not extending to Brooklyn. There was a sharp legal contest for possession of the Municipal Company. An injunction was obtained by the Brady people against an arrangement made by the Edison people; but this was obviated by another line of

negotiations, and the purchase by the Edison Company was completed. But the Brooklyn Edison Company had about forty per cent. of its revenue from public lighting; it now began to have trouble with the city authorities. Bills were "held up," for one reason or another, until a large debt from the city had accumulated, and the Edison interests felt the coils of the Laocoön serpents about them. Finally, negotiations with Mr. Brady resulted, in the summer of 1898, in the sale of Edison stock for an even amount in six per cent. purchase-money bonds, $1,000,000 being deposited by the purchasers for betterments. It was afterward stated that much of the Kings County Company's exploitation had been "bluff,"—apparent rather than real preparation for practical business.

The Edison Company in New York had developed a position peculiarly strong. It was generally considered that if any corporation could withstand "politics," it could. There was little, if any, over-capitalization. The difference between capital account and the value of the physical properties was chiefly payments in stock as royalty on the Edison patents; for stock returned by the parent company from this royalty was sufficient to cover preliminary expenses, experimental engineering, or wasted construction, against which Mr. Edison's foresight, particularly in the initial adoption of underground conductors, had been a great safeguard. This difference was much more than covered by the "good will" of its growing business. Nevertheless, the policy of the administration had been to increase the dividend from four to six per cent. only, writing off a liberal allowance for wear and tear of equipment, and investing the balance out of earnings, which reached 12 6-10 per cent. in 1898, in new plant, until actual physical values should equal capitalization, and the good will should be a surplus asset, represented to the stockhoder in the premium on his stock above a par vaue for which there was dollar for dollar of physical assets. This policy was intended to safeguard the company against future competition from possible new companies, starting afresh with the latest machinery, and without royalty charges or experimental costs. But it was contrary to the Wall Street trend of realizing high values by paying large dividends, and it kept the stock out of the market, inactive and unspeculative because held strongly by investors, and ruling lower in price than its actual or potential value, and subjected the company to some criticism. Three cardinal principles had been laid down: that no money or other consideration should be paid, directly or indirectly, for political influence or protection, or for other questionable purposes; that the price of electric current should be lowered as fast as the increase of output and the decrease of cost prmitted, and should be invarably the same to each consumer under like conditions; and that no man should be denied work because he was not or was a member of a labor union. For years not a penny had leaked to "strikers," either at Albany or New York, and "strike bills" were met by immediate personal appearances of the executive and counsel at legislative hearings, with all the figures and books that could be asked for, placed frankly at the disposal of the legislators. The "boys" were puzzled by this queer kind of corporation, and those who held to the doctrine which leads conscientious directors to permit corruption to go on—that it is better to surrender to highwaymen part of the funds you hold in trust than to chance losing all—were sure that this policy could not last. Full publication of figures was made in the annual reports. Prices had been from time to time reduced, always voluntarily, as a matter of busines spolicy, so that the average return per unit sold had been reduced from 16 cents to 11 cents, although no substantial reducton had been found practicable to the consumers who paid returns on a costly investment for only an hour's daily use. The Edison Company had an understanding with the other companies that it would

give them advance notice of any change of prices; that it would maintain its stated prices strictly; and that it would not solicit customers from other companies, although free to take business which came unsolicited. This arrangement was reciprocated and worked well, the slight misunderstandings occasioned by agents being promptly set right on frank comparison of notes by the executives. Any customer could see any other customer's bills, if question of unfair prices were raised. A labor benefit dividend was paid to employees out of the profits of the year, and in addition to a staff council, meeting weekly, a labor council, representing the wage-earners of all departments, cared alike for the interests of the men and of the company. Within ten years the Edison Company had doubled the number of its stations, increased its engine capacity from 4,000 to 24,000 horse power, its customers from 1,700 to 8,700, its "lamp equivalent" from 77,000 to 915,000, its output from 2,000,000 to 22,000,000 kilowatt hours, its underground mains and feeders from 110 to 236 miles, its total earnings from less than $500,000 to $2,700,000. It had bought land and made plans for a waterside central statoin, to be the largest in the world, and had practically determined to reduce its basic price from one cent to three-quarters cent per 16 candle-power lamp hour (below actual cost for the smaller users, but justifiable on the principle of equal postal rates), and to increase its dividend to eight per cent. Its advance calculations, reaching to 1900, indicated for that year an output of at least 36,000,000 kilowatt hours, generated at a cost of but half that in 1898, and net earnings not less than sixteen to eighteen per cent. The policy proposed was, after bringing the actual physical properties up to par of stock, by appropriating surplus earnings for betterments, to distribute to stockholders, in dividends, the entire net earnings, keeping these at a maximum of ten per cent. by giving to the public continuously reduced prices. The company, in short, had reached a stage from which its prosperity promised to grow in geometrical ratio, permitting yearly decrease of prices and increase of dividends. It offered a tempting prize to the free cruisers on the financial seas.

The first attack upon the Edison Company of New York was through the Stock Exchange. Early in October, 1898, a bear "drive" was made upon the Edison stock from the office of Flower & Co. The price was temporarily depressed from 128 below 120, but the stock was widely and strongly held for investment; investors, instead of selling, began to buy, and the raiders found that they could not obtain control in this way. The stock promptly recovered, and the Edison situation was in fact strengthened by the failure of this *coup* The New York company, though the owning interests were in some measure those which had been behind the Brooklyn company, was in no danger, it was said, from the tactics used to capture the Brooklyn company, because only eight per cent. of its revenue came from city lighting, and it was not otherwise at the mercy of the politicians. Nevertheless, the proverbial timidity of capital and the widespread fear of Tammany ramifications opened the way to a like result.

The Metropolitan Street Railway Company, in providing in 1898 for the transformation of its Broadway system to electric power, had laid an extraordinary number of conduits along that line. It had failed to obtain legal authority to sell electric current for other than its own use, the notorious Eldridge bill of 1898, which, by one of its provisions, granted to street railway companies the right to dispose of "surplus" electric power, having been vetoed by Governor Black; and it explained authoritatively that all these ducts would be needed for a feeder system which would make each section of the line electrically independent of every other, and that they were intended solely for railway purposes. Meantime, a mysterious corporation,

with incorporators unknown to fame or to the directory, had filed a certificate of incorporation at Albany, under the comprehensive name of the New York Gas and Electric Light, Heat, and Power Company, with a proposed capital of $25,000,000, on which an organization tax of $31,250 was actually paid. This corporation proved to be a "Brady company," and it was rumored that Mr. Whitney and the traction interests were also behind it, and that through it the Metropolitan Street Railway Company would come into the lighting business. The first move of the Power Company, as it came to be called, was to purchase the securities and control of the Consolidated Subway Company—which was a "white elephant" on the hands of the telephone interests—and of the minor electric-lighting companies. Those remaining were the local Westinghouse companies, for which the price asked was considered too high, and the Edison Company. The control of the subways gave no legal advantage, because the Board of Electrical Control was bound to assure equal rights and terms to all companies desiring or using ducts; but this did not prevent fear of trouble from methods, in the words of the New York correspondent of the Philadelphia Press, "not unfamiliar to great combinations of capital, sometimes called freezing out, sometimes buying out, sometimes clubbing out."

On the securities purchased, the Brady interests proposed to issue Power Company mortgage bonds, for which they sought a market, and, very cleverly, a banker who was a director of the Edison Company was asked to handle the bonds. He replied, promptly and properly, that, as an Edison director, he must first consider the interests of the Edison Company; whereupon a proposition to purchase the Edison property was duly made. Threats are not usual in such negotiations, but there is sometimes an emphasis of certain features of the situation. As prophesied by the correspondent already quoted, the Edison Company might "find itself confronted with two alternatives; to enter into ruinous competition, or to deliver itself for a price to the mysterious corporation." The Tammany menace was a still more serious consideration. This director, fearful as to the results of a struggle, and seeing a legitimate business opportunity in a transaction through which his clients might get a higher price for their stock than the ruling market price, after conference with another banker director, arranged that an offer should be considered. The banking houses of these directors afterward made up, with the Central Trust Company representing the Power Company, a syndicate by which a transfer of control was finally effected. While the negotiations were being privately conducted, information as to the personnel, power, and prospects of the Power Company was made public through the press. The New York Journal announced that the "Big Eight" behind the concern were Mr. Whitney, Mr. Brady, ex-Governor Flower, Messrs. Widener, Elkins, and Dolan, of the Philadelphia traction syndicate, and Messrs. Ryan and Flynn, both well-known promoters. It printed a diagram, absolutely without foundation in fact, representing the maximum requirement of electric current for railway purposes as between seven and eight P. M., and for the lighting companies as from eight P. M. to one A. M., in proof of the economy of employing the same electric plant for traction and for lighting. The actual facts were that the maxima came closely to gether, with little, if any possible saving by combination, about six o'clock of a winter day, when the street cars were carrying the home-goers, and when office lighting and industrial motors downtown overlapped residence lighting uptown. It was announced as from an official representative of Mr. Whtiney that a reduction of thirty per cent. to consumers might be expected from the economy thus indicated. This newspaper talk naturally had an unsettling and disquieting effect.

Assurances had been given that the management of the Edison Company would be continued and protected, and the proposed purchase was at once made known to

the active executive and to the other leading directors, and later to the larger stockholders, under seal of confidence. The condition created by this confidence was peculiar. It was not imposed from motives of secrecy, for the sale was conducted throughout in the best of faith, but to prevent premature disclosures of negotiations which it was thought could not be carried on publicly without affecting the market value of the securities unfairly to all concerned, and perhaps making the transaction impossible. No meeting of the stockholders was held for the discussion of the proposed transfer; for the transaction was in form not a transfer of the company, but a concerted sale of private holdings, which was not to be consummated until fifty-five per cent. of the shares were included. The directors were prohibited by law from selling stock not in their holding, nor could they, as a board, sell control of the company. The proposals were discussed in meetings of the directors, but, for the same reason, never by the board of directors as such. The active executive stated that he should oppose a surrender by sale, and proffered his resignation, but was formally requested, by resolution, to remain in administration, and found himself under moral compulsion to do so, in the interests of the stockholders, though his hands and tongue were tied until the proposed transaction should be arranged and announced. It became his contradictory duty to coöperate in getting the best terms in negotiations to which he was opposed. Other directors were opposed to the transfer, but thought it wiser to take a good price than to risk a struggle with Tammany and its city administration. "You have no idea what these people can do to you," said one of the directors, a partner in a house foremost on the Street. These people were the triumvirate of Mr. Brady, on the promoting side, Hugh J. Grant, Tammany ex-mayor, on the political side, and Frederick P. Olcott, president of the Central Trust Company, on the financial side, with Mr. Whitney as the power behind the throne, and Tammany looming in the background. The Edison directors who were negotiating were not willing to advise a sale under 200 cash. It was finally arranged that 220 per share should be paid in four per cent. purchase-money bonds (for which one of the syndicate houses guaranteed to pay at least 85, making 187 cash for the stock) secured by the Edison stock sold, and by $4,000,000 for investment in betterments to be supplied through the Central Trust Company, which was the trustee of the bonds, and was to hold the stock as collateral therefor in a voting trust. After the great body of the stock had come under this voting trust, the Edison shares were withdrawn from the list of securities sold on the New York Stock Exchange, and thus minority stockholders had no longer real share in the administration of the company, or the resource of an open market for the sale of their holdings.

This transaction required for the Edison capital of $9,200,000, bonds to the amount of $20,240,000, to which $760,000 was added for expenses and profit of the syndicate. As Mr. Edison tersely said, this was only "paying with the printing press." This issue required nine per cent. dividend on the stock to cover the four per cent. interest on the bonds; but the company was earning over twelve per cent for 1898, and it had been estimated that it would earn normally, at its ratio of growth, approximately fourteen to sixteen per cent. in 1899, and sixteen to eighteen per cent. in 1900. The syndicate houses, before issuing a circular stating the proposition, made sure that a majority interest in the stock was friendly to the arrangement, and the others concerned were under pledge of confidence. Not until the formal announcement had been issued by the syndicate, early in 1899, was the seal of confidence removed, and opposition then could be little more than protest from minority stockholders. A number of stockholders expressed a preference to keep their stock, but in fear of consequences made the exchange, or sold in open market, at

about 195 cash, until all but a few hundred shares were in possession of the Power Company.

On the resignation of the active executive, which followed immediately, ex-Mayor Grant was elected first vice-president; but the real control was held by Mr. Brady himself, through a personal representative who was made general manager, the former incumbent being retained as associate general manager. No other changes in personnel were made, except that the secretary was later replaced by a son of Mr. Brady. The former directors were replaced, *seriatim*, mostly by "dummies,"—the Wall Street name for directors who merely do as they are directed. The administration of the minor electric companies was gathered into the Edison building, some rearrangements were made, new Edison sub-stations were erected, and additional current was obtained from the Metropolitan Street Railway Company, while the work on the great waterside station, which had been stopped by the negotiations, was resumed and pushed forward. As the corporation laws provided that bonds should not be issued to a greater amount than the capital stock, the capital stock of the Power Company was increased to $36,000,000, to offset the issue of $21,000,000 Edison and $15,000,000 other purchase-money bonds—a process complying with the letter of the law by inverting its intent. No reduction of prices was made, except possibly by special arrangement with individual consumers, and in fact the fixed charges of bond interest had added several cents per unit to the cost of current.

While these electrical consolidations had been in process the gas war was going merrily on, and had, indeed, developed into a battle of the giants. The Consolidated Gas Company, on the one side, had behind it the Standard Oil interests, with the National City Bank and other banks and trust companies, and it had also secured a hold in the electrical situation. The Power Company had declined to pay the price asked for the local Westinghouse companies, which had been much above evident value, and the "freezing-out" process was in progress when the properties were suddenly and secretly sold—not even their executive officer knowing who the real purchasers were. Rumor at first named the Third Avnue Railroad; later it proved that it was the Consolidated Gas Company which had thus stolen a march on its Whitney-Brady rivals. The New Amsterdam Gas Company and the Power Company, controlling all the other electrical companies, on the other side, were in alliance with the Metropolitan Street Railway Company—with Mr. Whitney and the Philadelphia syndicate, the Central Trust Company and the State Trust Company, behind them. This was the situation on the chessboard up to the "break" in Wall Street on December 18, 1899, when the suspension of the Produce Exchange Trust Company precipitated a "day of panic and financial wrecks." A hundred million dollars would probably be a low estimate of the shrinkage of market values on that direful day. Consolidated Gas stock dropped from 179 to 169, but the greatest weakness developed in the Whitney securities, Metropolitan Street Railway stock dropping from 167 to 147. The conservative action of leading bankers stayed the panic; but after the smoke had cleared away, it became known that the control of the Power Company had passed to the "Octopus" as the Consolidated Gas Company had come to be known.

The annual meeting of the stockholders of this company, in the January immediately following, was an interesting example of the modern method of handling corporations. The acquisition of the Power Company had been announced, and at this meeting it was proposed to elect Mr. Whitney, Mr. Brady, and Mr. Ryan as members of the Consolidated Board. Some opposition to the rate war and to

the proposed absorption of the Power Company had developed. When the meeting was called to order, the chairman of the board at once announced that the polls were open for balloting. The holder of the opposition proxies rose to speak, but the chairman recognized a stockholder who made a motion that a recess be taken for an hour while the voting was going on. After the statutory hour required for the polling had passed, and the meeting was again called to order, the chairman recognized a stockholder who moved that the meeting adjourn *sine die*, and that the tellers be directed to file their report of the vote with the secretary; he declined to recognize the representative of the minority stockholders, on the ground that the motion was not debatable, and declared the motion to adjourn carried. It was later announced that out of 390,780 shares outstanding, 281,919 shares had been voted, all for the directors as nominated. The Consolidated Gas Company, it appeared, had arranged to purchase the entire $36,000,000 capital stock of the Power Company at par, with debentures to an equal amount which might be converted within six months into gas stock. The new board of the Consolidated Gas Company recommended the issue of 155,172 new shares of stock, which, at the price agreed upon of $232 (being forty-three per cent. in gas stock at par for each Power Company share), would take up these debentures, and the proposition was ratified at a special meeting of the stockholders, March 9, 1900. This new issue brought the capital stock of the Consolidated Gas Company up to $54,595,200, and later further increase to $80,000,000 was authorized, of which $72,814,800 has been issued. The "Street," which had at first considered the transaction a serious blow at Mr. Whitney's prestige, now changed its view, and gave him credit for a merger in which he held his own; but the real terms of the truce have never been fully made known.

An extraordinary incident of the campaign developed about this time through a petition by a minority stockholder of the State Trust Company, in which Mr. Whitney and his associates had obtained, in December, 1898, a controlling interest, for an investigation by the State Banking Department as to certain specified loans. In the new directorate were Mr. Whitney, Mr. Ryan, Mr. Widener, President Vreeland of the Metropolitan Street Railway Company, and Elihu Root, one of the counsel for the Whitney-Brady interests. The state banking law provided that no banking corporation should make any loan "directly or indirectly to any director or officer," or any loan "to an amount exceeding one-fifth part of its capital stock actually paid in, and surplus." The State Trust Company had a capital stock of $1,000,000, and about $1,200,000 surplus, which made the maximum legal loan approximately $440,000. The petition alleged that among the loans were $2,000,000 to Daniel H. Shea, a person unknown in the financial community; $1,000,000 to Moore and Schley, bankers associated with some of the Whitney-Brady enterprises; $785,000 to Mr. Brady; $412,800 to William F. Sheehan, counsel for some of his interests; $435,000 to Louis F. Payn, a widely known member of the "third house" at Albany, whose appointment as Superintendent of Insurance had provoked a storm of protest; and $500,000 to the Metropolitan Street Railway Company—a total of over $5,000,000 to one set of interests, which was about a third of the capital and deposits. Shea, who proved to be an employee in Mr. Ryan's office, suddenly leaped into fame as the office boy who had borrowed $2,000,000. The Superintendent of Banks promptly reported, January 13, 1900, that the company's affairs were in an entirely solvent condition, and added apologetically that the "excessive loan of $2,000,000 made to a representative of a syndicate in which three of the directors were interested" was amply secured, and that the loan of $500,000 "had been reduced to the legal limit." The collateral for these loans included 20,000 shares of Electric Vehicle stock, a

Whitney enterprise which had recently increased its capital by this amount, 20,000 shares of Power Company stock, and $2,000,000 Consolidated Gas debentures. The State Trust Company weathered the exposure, but was afterward merged into the Morton Company, and the episode is significant chiefly as showing the ramifications and methods of the transactions here chronicled.

When the control of the Power Company passed to the Consolidated Gas Company, the new directorate of the former included President Gawtry and others of the gas company, with Mr. Brady and his associates, who continued in management. There remained outstanding a few hundred minority shares of the Edison stock, and these were treated as having no rights, beyond the dividends, which the majority could be expected to recognize. Reports of earnings and of the condition of the company were no longer published; no information was given to the stockholders at the annual meeting, and individual requests for figures were refused; and the voting trust at the stockholders' meeting passed votes approving and confirming all the acts of the directors, against the protest of the minority that such votes could not be passed without information (which was refused) as to what the acts of the directors had been. Nine per cent. dividend on the $9,200,000 Edison stock, required to pay the four per cent. interest on the $21,000,000 purchase-money bonds, could not be legally paid without including in its benefits the mnority stockholders. The bond interest above six per cent. dividend was therefore obtained from other sources, up to May, 1901. To ease this situation, and to release the $8,962,500 Edison stock acquired by the Power Company, but tied up as security for the $21,000,000 purchase-money bonds, it was then proposed to take advantage of a clause in the deed of trust by which the Central Trust Company, as trustee for the bondholders, was permitted to surrender the Edison stock if the Edison properties were directly pledged as security. Notice was served of a fresh consolidation, by which the existent Edison Electric Illuminating Company of New York and the New York Gas and Electric Light, Heat, and Power Company were to be merged in a new company, to be called the New York Edison Company, which, when organized, was to make such direct pledge of the Edison properties. The accrued surplus Edison earnings, which were stated to be $31.15 per share, were to be paid to the Edison stockholders (including the Power Company) assenting to the merger, but not to others. One and a quarter shares of the new stock were to be given for each share of Power Company stock, and, to induce minority acquiescence, five shares for old Edison stock. As to those recalcitrants who declined to take the watered stock and dissented from the arrangement, reliance was had upon a clause in the corporation laws providing for a judicial appraisal. This plan was formally carried out, under protest from minority stockholders; for although there were doubts as to its legality, there was no sufficient interest to enter upon a costly contest. The resultant is a consolidated company, including all the electric-lighting companies in Manhattan except the Westinghouse companies (these being directly owned by the Consolidated Gas Company), with a stock capital of $45,200,000 —all but a few hundred shares being owned by the Consolidated Gas Company. The new capital equals the sum total of the capital stocks of the two merged companies: $9,200,000 Edison, of which $8,962,500 was already owned by the Power Company, and $36,000,000 Power Company, of which $21,000,000 had originally been based on the Edison properties. Underlying this stock capital—which represents little, if any, actual money investment, except possibly the $4,000,000 cash pledged for Edison betterments, as all the stocks and properties acquired were paid for in bonds—is $39,950,000 of Power bonds, $6,500,000 Edison bonds and

other bonds of merged companies being still outstanding. It is difficult to state lucidly this extraordinary multiplication of complications, in which the original $9,200,000 Edison stock is represented by the $21,000,000 Power Company purchase-money bonds, the $21,000,000 Power Company stock based on the Edison property already purchased by these bonds, and the $9,200,000 again added as the old Edison capital in the new company. This is an aggregate of $57,700,000 out of a total capitalization, share and loan, of the new company exceeding $85,000,000, built up within two years, with which to carry on a business, based chiefly on the Edison earning power, which under the old conditions would have been done to-day on approximately $20,000,000 capitalization. This development may be carried further by the issue of new bonds of the new company, if a market can be found for them, when a fresh consolidation with the Westinghouse companies, and again with the Brooklyn companies, might repeat the process indefinitely.

It is impossible to state with full accuracy the total capitalization of the gas and electric interests in Manhattan and the Bronx now under control of the "Octopus" consolidation. It is understood that the $72,814,000 to which the stock capital of the Consolidated Gas Company has recently been increased, absorbs the stock both of the New Amsterdam and of the Standard gas companies, as well as of the new Edison Company, and perhaps also of the Astoria Company, which came avowedly under its control at the 1901 election of directors, but this may not cover all of the Mutual and other shares. Of bonds of the several companies, $71,747,000 are scheduled as outstanding, but this schedule may not be fully comprehensive. Allowing 210 as a recent average price of the stock, and par for the bonds, the market value of the gas and electric securities in New York is thus at least $222,000,000, not including the borough of Brooklyn, which field, it is reported, will presently be covered in a further consolidation.

The situation here noted is not without parallel in lesser degree in other cities than New York, into which the Whitney and Brady interests, the "Philadelphia syndicate," and financiers of similar methods have, severally or jointly, made their way. The disregard of public interests by speculative promoters abusing political power perhaps reached its acme in Philadelphia, where a municipal gas plant was so misused as to invite a reaction in favor of arrangements with a private corporation, and where a similar neglect of the water system, in an endeavor to force a water contract not unlike the notorious Ramapo scheme in New York, had the awful result, according to the Philadelphia newspapers, of numerous deaths from typhoid fever. The combination of the *haute finance* with base politics is not a question of party name or of affiliation, as the oft-cited comparison of New York and Philadelphia sufficiently suggests, for the financing which uses municipal politics as its tool works not only by help of the dominant party, but with the connivance of the minority as well. The recognition of this fact has led to the several movements to deal with the franchise question, once for all, in the fundamental law, in substantial accord with the suggestions of the National Municipal League.

The charter of Greater New York declares the rights of the city in and to its streets and all other public places to be inalienable, and provides that no franchise or right to use the streets shall be granted for a longer period than twenty-five years, with possible renewals, on re-valuation, not exceeding in the aggregate twenty-five years more. The grant is to provide whether, at the expiration of the franchise, the plant and its appurtenances should become the property of the city without further compensation, or upon a fair valuation. If the city obtains the property

without money payment, it may operate the plant on its own account, or renew the grant for not exceeding twenty years more, upon a fair revaluation, or lease the same to others for a like term; but if it makes money payment for the property, it must operate the plant on its own account for at least five years, after which it may determine to continue such operation or to lease the franchise. Every grant must make adequate provision to secure efficiency of public service at reasonable rates, and the maintenance of the property in good condition. The grant must be embodied in an ordinance stating all the terms and conditions, including rates and compensation, which must be published at least twenty days before action, and a three-fourths vote of the municipal assembly must be had, after approval of the terms by the board of estimate.

Next to that in the charter for Greater New York, the most important utterance on this subject, and one which deserves the attention of all students of municipal conditions, is the Report of the Street Railway Commission of Chicago, made at the close of 1900. The report accepts the principle that the street railway business should be recognized as a monopoly business, involving unification of management. It declares that franchise grants should be limited in duration, and that broad powers of public control should be exercised, suggesting a municipal committee, with regular quarters open during business hours for receiving complaints from citizens, and with the best expert assistance at its service. It holds that a city should possess and reserve the right to own and operate street railways, as a help in making better terms with private corporations, and that ownership of the trackage and of whatever may form a part of the street should be resumed by the city at the earliest practicable time,—every additional grant of privileges from the municipality being made an opportunity to provide for the reacquisition of street privileges previously granted in perpetuity or for extended periods. The people should have a direct voice, through a referendum, in the settlement of street railway questions, and the affairs of the company should be open and known to the public, as if managed and owned by the public directly. The public, it maintains, has the right to demand uninterrupted street railway service, and arbitration for the settlement of labor disputes. The law should forbid over-capitalization. Frontage consents should be required only when tracks are first laid, and the right of abutting property owners to prevent the use of a street, regardless of the public need, should not be absolute and unqualified. The city should be in a position to require the use of traffic subways in congested districts, to prohibit the use of overhead trolleys, and to insist upon the most desirable form of motive power. The question of low fares *versus* compensation, and the question of uniform fare as against graded fares or a zone system, should be matters of public policy, and there should be coördination between surface lines and steam and elevated roads. This able report, with its informing appendices, fairly reflects the conservative yet progressive opinion of those best qualified to speak.

Both these documents emphasize the importance of reserving to the municipality, as a last resort against the greed of corporations, the power to municipalize franchise industries; that is, to undertake the actual operation of street railways, and the supply of gas, electricity, etc., as of water, by the city itself. The New York charter makes such operation obligatory for a period of five years, in case a plant is purchased on valuation by the city,—a provision intended to prevent the foisting of a plant upon the city by private capitalists, with the purpose of leasing it back again, freed from the necessity for investment. But, except by those who favor socialism *per se*, it is generally admitted by the advocates of municipal operation, as distinguished from municipal ownership of franchises with proper inspection

and control, that, until the civil service of our cities, and especially the municipal employment of labor, is in better shape, municipalization is fraught with dangers. Municipal operation in Philadelphia, under conditions parallel to those in New York, has been made to play into the hands of private corporations; and the authorities in an English city which has municipalized its gas and electric plants frankly admit that they cannot maintain a standard of labor as high as under private operation, because the dismissal of an employee is the signal for overwhelming use of political influence in defense of the discharged constituent. It is, of course, a question whether secret subservience of public-utility corporations to a corrupt political organization in exchange for franchise privileges has not greater disadvantages than municipalization itself; but the danger of applying so drastic a remedy for what are perhaps temporary conditions is suggested in the mere thought of turning over the transportation and supply services of New York to direct Tammany administration. The alternative of municipal ownership of franchises and of street and wharf structures, leased under proper conditions of control and inspection to operating companies, which has been made prominent in the New York charter, has been for years an entire success with respect to the ferries between New York and Brooklyn, which are periodically subject to new arrangements between the city and the operating companies.

It should be fully conceded that pioneers in industrial progress, who take large risks in the service of the public, are entitled to large profits, and that good service is entitled to good returns. But the pioneer work and the great risks of electric railways, in city or country, of gas and electric lighting, and of other public utilities, are matters of the past, and there is no longer semblance of justification for a condition of things through which promoters can, by manipulation of the market, put into their private pockets within a few months the great part of the value of a public franchise. Nothing, in fact, is so evident an example of the "unearned increment" as a franchise value, and the recognition of this has led to such legislation as the franchise tax act, the Ford bill, passed by the New York legislature in 1899, which classes franchise privileges with real estate, and subjects public-utility corporations to the same tax rate upon their franchises as upon their physical property. For 1901, the New York State Board of Tax Commissioners have valued the Metropolitan Street Railway franchise at $50,890,112, and that of the Third Avenue line at $16,370,285,—together $67,260,397; and the Manhattan Elevated franchise at $44,407,500. The gas franchise of the Consolidated Company proper is valued at $13,990,000, the Mutual franchise at $2,300,000, the Standard at $3,075,520, and the New Amsterdam at $4,127,500,—together $23,493,020; the original Edison franchise at $6,202,250, and the other franchises of the Power Company at $1,883,330,—together $8,085,580; giving for the gas and electric franchises in Manhattan $31,578,600, not including the two subway franchises, valued together at $6,395,200. Here is a total of $105,000,000 valuation of the Metropolitan-Consolidated franchises, on which a tax of 2¼ per cent is levied, as against a capitalization, share and loan, exceeding $300,000,000, for which an earning power of four to eight per cent. is claimed, giving a market value much above $400,000,000, and of which scarcely more than a third of the capitalization or a quarter of the market value is investment in physical properties.

These figures suggest that a large part of the "unearned increment" is yet to be reached by taxation, or otherwise recovered for the people. The exercise, in behalf of the superior interest of the people, as represented by the municipality which is the agent of the sovereign state, against corporations occupying the streets,

of the right of eminent domain, with just but not inflated compensation, the right which has been used to condemn private property for corporate use, though it may prove useful as a last resort, seems scarcely necessary. In New York City, the subway companies and several of the railway lines are under specific obligations to surrender their properties to the city on a valuation, or for a reasonable advance upon cost; and in many cases corporation managers have so far exceeded their charters—even to the extent of violating their provisions by engaging in business which they have no right to do, or seizing upon street privileges to which they have no legal claim—as to render themselves amenable to such serious penalties as would make an arrangement with the city the preferable course. The hint of the Chicago Commission, that every extension of franchise privileges should be made a means of reacquiring proper control of the franchises already granted, should have effective application in New York under an honest and enlightened municipal government.

The New York corporation laws forbid over-capitalization by requiring that stock shall be issued at par for cash or for property only, and that bonds shall not be issued in excess of the amount of stock; that is, that the mortgage on corporation property shall not exceed the amount paid for the property. But the valuation of the directors cannot be questioned, nor can they be held responsible for it, except in case of evident fraud. It has become a common practice to reverse this theory of the law by issuing stock for property really purchased with an equivalent amount of bonds. This stock, issued to the full extent of the earning power, as is justified by the decision of the Court of Appeals in the Western Union Telegraph case, and paid by the promoters to themselves, gives them control of the property for which the bondholders have really paid, and becomes, less the organization tax and like necessary charges, the fee or profit of the promoters. A public schedule of the properties for which stock is issued, perhaps with specific valuations by sworn official experts, seems necessary to make the present corporation laws effective; and this should be supplemented by yearly reports of the acquisition of properties, and by full publicity of the accounts of public utility corporations. The fact that the stock of the Consolidated Gas Company ranged, in 1897, between 241 and 136, and that of the Metropolitan Street Railway Company, in 1899, between 269 and 147, shows how uncertain to investors and how dangerous in the market are securities of this class when the real facts of the situation can be concealed, and when capitalization, bond issues, and dividends are at the beck of speculative promoters, whose interests may be at one time on the "bear" and at another time on the "bull" side of the properties which they are supposed to direct in the interests of the stockholders. In the railway development of the last generation, the capitalization of new railways by issuing bonds for the money actually paid, and preferred stock and common stock in equal amounts in expectancy of adequate earning power, has proved a sowing of the wind from which this generation—especially the small investor and the proverbial widow and orphan—has reaped the whirlwind harvest of railway reorganization, profiting only, in enormous fees, the bankers who, with the scalpel of the financial surgeon, cut down the inflated securities to a basis of real value. The speculative promoter who has turned from the general railway field to that of municipal utilities has found his opportunity in procuring franchises without compensation, or in buying up, under compulsion, franchise properties already developed, in capitalizing these to their potential earning power, and from this increase of capitalization realizing a profit which he has not earned.

The remedy which will cut to the root of these evils—aside from palliatives

which may be found in further legislation or in the actual application of present laws—is a municipal spirit, a civic courage, a political *morale*, especially on the part of the "well to do," which will overcome the timidity of capital, and stand fearlessly firm against Tammany in New York or against a Republican ring in Philadelphia. The power and danger of Tammany misrule is nowhere more strikingly shown than by the fact that such representative citizens, men of integrity, ability, and honor, as made up the Edison Board, among them sincere and foremost leaders in altruistic enterprises, in crusades against vice, and in efforts for municipal reform, hesitate to lead in opposition to this form of Tammany domination, lest they should not have the support of those for whose financial interests they are trustees. Unfortunately, the great public utility corporations of New York have passed into the hands of those whose sympathies and interests are in affiliation with Tammany rather than in opposition, and this is one of the grave difficulties of the present crisis. Yet there are wholesome signs of the revival of a municipal spirit, a civic renascence inspiring rich and poor alike, which may prove a potent and triumphant foe to the forces of evil, and redeem our cities, and with them our country, from the shame and degradation of municipal misrule.

COLUMBUS ATTEMPT TO SECURE THREE-CENT FARES.*

By Edward W. Bemis.

The Columbus Railway Company came before the city council of that city in January, 1901, to secure an extension of its franchises for twenty-five years. The company possessed franchises on many streets, which were to expire at various periods during the next few years, and it claimed perpetual rights on other streets —and those the most important and profitable—although there was a serious doubt whether the latter franchises were valid. The company was not willing to concede its claims regarding the grants that were without time limit, but proposed, in the sought-for franchises, to secure rights on all the streets for twenty-five years, which would be binding even if the courts should declare that the so-called perpetual franchises are invalid. In return for all this, the company was at first willing to concede but little. Cash fares were to continue at five cents, but with larger privileges of transfer; the previous rates, six tickets for twenty-five cents and twenty-five tickets for one dollar, were finally, in response to a vigorous demand from the people, changed to seven tickets for twenty-five cents in the proposed ordinance. The average rate of fare in 1900 was 4.54 cents.

Before this concession was secured, the Hon. Tom L. Johnson of Cleveland, who had not at this time entered the race for the mayoralty of his city, visited Columbus at the request of a body of citizens, and addressed both them and the city council, opposing a new franchise for twenty-five years on such terms. When pressed to make as good an offer himself as he claimed the company could do, he made the city a remarkable proposition. He agreed upon the following: "(1) Three-cent fares with universal transfers. (2) A limit of profits to the owners of the road of 6 per cent. upon actual cost. (3) That any earnings from the three-cent fare in excess of operating expenses and 6 per cent. upon cost of construction must be applied toward retiring the capital and thus reducing the interest charge. (4) An option to the city to acquire the property at any time and to operate the road, paying therefor only the actual net cost at that time. (5) A reserved right to the city to reduce fares below three cents as fast as earnings would warrant, after paying 6 per cent. on cost of construction; the 6 per cent. in all cases to be figured only upon the cost of the property not yet retired." Thus whenever the cost of the road should have been returned to the owners, the city would have the option either to take the road for nothing or require the company to operate it at a rate of fare which would cover operating expenses only. Mr. Johnson claimed this would be less than two cents per passenger.

He proposed, as he explained at the mass meeting, that the council should assume that the franchises are invalid and have already expired on all the streets wherein there is at least a plausible reason for that contention. The city government should then order the old company off from those streets and give him a franchise on the basis of a straight three-cent fare, higher wages, shorter hours, compulsory arbitration of labor disputes, as good service as at present, or even better, etc. The ordinance would also provide that he should have similar rights on

*From the November issue of the Annals of the American Academy of Political and Social Science.

the other streets for a period not to exceed twenty-five years from now. He would endeavor to secure possession by purchase at a valuation to be determined by arbitration. The next step would be for either Mr. Johnson or the city government to begin the tearing up of the rails on some street where it was plain that the franchise had run out. Of course, it would not be intended to proceed further than to provoke the company to issue an injunction and it might easily be arranged for this to be done before a single rail had been removed. Then the matter would be referred to the courts, the operation of the railway would go on as now, and Mr. Johnson would bear the expense of maintaining his rights under the ordinance.

He says that he thinks final decision could be reached within two years, and attorneys of good standing scout the idea that it would take any such long period of five to ten years, as is claimed by friends of the company. This experienced street railway magnate holds that, if the proposed new company won a victory in the courts with regard to possession of the streets upon which the rights of the old company are most doubtful, and which happen to be by far the best paying lines, the latter would soon be willing to sell out all its tangible property, and then to sell existing franchises at such a fair valuation as might be fixed by the board of arbitrators. Further, Mr. Johnson declared on his honor as a gentleman that he stood ready to put up any bond that the council might order for the full performance of the above and other terms of the ordinance that he presented. These terms included, as just observed, not only full guarantee of better treatment of employees than now, but also complete publicity of accounts and the ultimate turning over to the city, through sinking fund payments, in either low fares or otherwise, of all the profits of the enterprise after the retirement of the capital, which would never be allowed to have a return of over 6 per cent.

Mr. Johnson's ordinance, it was shown at the time, could be improved in certain minor particulars, especially with reference to the control by the city government of the number and heating of cars and other matters relating to the comfort and convenience of the traveling public, and he expressed himself as ready to incorporate such improvements. In all respects, however, his proposed ordinance was far superior to that of the existing company.

The friends of the Street Railway Company at once raised three objections to these very attractive propositions, as follows:

1. Mr. Johnson probably was ambitious to be the United States senator from Ohio, and his proposition was for political effect. The reply that seemed to be conclusive was that while, in view of the past history of senatorial contests in the Buckeye State, it might be evidence of criminal intent or of bad character to run for the United States senate, yet this was no particular concern of the people of Columbus, provided Mr. Johnson were willing, as he claimed, to furnish any bond that the city might require as evidence of his good faith. No one doubted his extensive and successful street railway experience and possession of sufficient capital to carry out the proposition.

2. It was again objected that he would inevitably lose money and throw up his contract, and at the same time hypnotize the city council into relieving him of any forfeit. This was too serious an indictment of their own capacity for self-government to have much weight among the people of Columbus. With regard to the possibility of making money on three-cent fares, it was truly said that the street railway traffic in Columbus had grown 72 per cent. in ten years, without any material reduction in fares, and would almost certainly grow at least 50 per cent. in the next five years with a reduction of one-third in fares and the removal of the necessity of bothering with tickets. Such an increase of 50 per cent. in traffic oc-

curred in Toronto in the six years, 1893-99, without any change of fares, and with a cost of operation and taxes per passenger, for the 10,611,930 new passengers, of only $112,728 per year, or 1.06 cents per passenger. This brought down the average cost for the entire number carried in this Canadian city from 2.53 cents in 1893 to almost exactly 2 cents in 1899. The operating expenses and taxes in 1899, in Columbus, were only 2.4 cents per passenger, with seven more miles of track than in Toronto, and with two-thirds as many passengers per year. Such increase of traffic as would come from a large reduction of fares would be in the short rides which are the most profitable to the company and in the more extensive use of all of the track, and would not call for increase of capital expenditure, save to a moderate extent in equipment. There is every reason, therefore, to believe that such a company, carrying 20,000,000 passengers for 2.4 cents per passenger, could carry another 10,000,000 for 1 cent per passenger. This would bring the average below 2 cents. Because of its level area and comparatively little snow and only moderate wages, the Columbus street railways can be operated at much less expense per passenger than in the smaller Eastern cities.

3. A third objection raised against Mr. Johnson's proposition, and the one that influenced many, was the enormous depreciation in the stocks and even the bonds of the present company that would result if it were not given a new franchise upon practically its own terms. The most careful investigation that the writer could make, aided by some excellent expert engineering assistance, showed that the road could be duplicated to-day for about $25,000 a mile, or $2,500,000. This low figure need not surprise any who are familiar with the official inventories of the Massachusetts companies. The admirable plant at Springfield, Mass., for example, whose output, cars, power plant, etc., seem to be superior, per mile of single track, to those at Columbus, has been valued by the highest authority, the expert of the Massachusetts Railroad Commission, at about $33,000 per mile, and has capital stock and funded and other indebtedness of only $30,000 a mile. On the other hand, the Columbus road is stocked and bonded for $115,000 per mile. The way this arose is one of the most interesting and instructive chapters in stock watering. The road, in its present shape, was practically organized in 1892 by the purchase for $2,250,000 of the only road of any importance then existing in the city. The old road had cost scarcely one-half what was paid for it. The other half was payment for franchise, but bonds were issued to cover the entire amount of purchase, and on top of that, $3,000,000 of stock was issued, partly as a bonus for the buyers of the bonds, or for the syndicate that floated them, and partly for the promoters. Thus the road started, not only with all its stock watered, but with half its bonds of the same character. The defense for this financiering was twofold: First, it was necessary to issue this stock in order to float the bonds, and it was necessary to float the amount of bonds actually issued in order to buy the road, but of course it was not necessary to buy the road, and hence the issue of either stock or bonds was not, in the last resort, obligatory upon the existing company. In the second place, it was urged that the stock was issued in order to obey the Ohio law that forbids the issue of any more bonds than there is stock. In other words, with charming *naïveté*, this company claims that it issued the watered stock out of its supreme desire to obey the existing law.

This Columbus company, which in 1892 had just paid $2,250,000 for its property, took oath to the tax assessors through its vice-president, that it was worth only $144,000. Even as late as May, 1899, when it had outstanding $6,500,000 of par value of securities worth fully that in the market, the company declared under oath that its property was worth only $417,074, and in 1900, shortly before it sought the new

ordinance, it declared to the assessors that its physical property, apart from its franchise, could not be sold for $375,000. Yet real estate in the city in the hands of private individuals is in general assessed for one-half of its value.

In order to buy out other roads that had started in the city, the company after 1892 issued other bonds with which to pay not only for physical property, but for franchises, or for improvements to take the place of old equipment which was discarded, but whose cost was not written off the capital account. Hence at the present time the bonds of the company amount to $5,372,000, while through the same interesting obedience to Ohio law, as above described, the stock has been increased to $6,000,000. Not one dollar of the entire stock has ever been paid into the treasury of the company out of the pockets of the stockholders, while the bonds, as indicated, are more than double the value of the physical property of the road. Yet not only have the bonds been sold at par, but the $3,000,000 of preferred stock was selling at nearly 100 when a new franchise was sought, and the $3,000,000 common stock was selling at over 35. The entire value of this stock represented not the worth of their existing franchises, but the gamble of the investors that new franchises of enormous value would be soon freely given away by the city in return for very moderate concessions, as proved to be the case.

Mr. Johnson argued that the nearly 21,000,000 passengers carried in 1900 would increase to fully 31,000,000 within three or four years if the fare was reduced to three cents. He then held that the profit per passenger would be at least one cent, which would be equal to six per cent. on over $5,000,000, and with the prospect of still further increase long before the twenty-five years of the new franchise had expired. while he assumed that this $5,000,000 would not only pay for the present structural value of the old plant, but would pay over $1,000,000 for the value of any franchises they still possessed, and leave another $1,000,000 for the improvement of the track, rolling stock and power plant.

The company, however, secured the passage of the ordinance it desired. Seven tickets for twenty-five cents, with universal transfers, were conceded. This would mean, if every one bought tickets, an average of only 3.56 cents, and if three-quarters of the people bought tickets, an average of 3.92 cents. Columbus, therefore, has secured the lowest rate of fare of any city on the continent, although this is fully three-fourths of a cent higher than was offered by the present mayor of Cleveland.

When the ordinance extending the franchises came up for final passage in the city council, February 4, last, it was well understood that the council were determined to pass it. Rumors were rife of bribery, and threats of violence against those suspected of receiving the same were in the air. The then mayor, who believed in the extension of the old franchise, not only filled the lobby with police, but had a militia company drilling overhead, and declared that it would remain there until the council had adjourned.

Since the passage of the ordinance cases have been instituted in the courts by one or more Columbus citizens to test the legality of the new franchise and of the claims of the company to perpetual rights on the most valuable streets. It is proposed to carry the suits up to the United States Court, if necessary, and the briefs that have been filed on both sides constitute perhaps the most exhaustive treatment of the legality of unlimited franchises that ever has been prepared.

THE EMBELLISHMENT OF WASHINGTON.

PRELIMINARY REPORT OF THE SENATE COMMITTEE ON A PLAN FOR THE IMPROVEMENT OF THE DISTRICT OF COLUMBIA.

(Senate Report No. 166, 1902.)

On January 15, 1902, Mr. McMillan, from the Committee on the District of Columbia, presented the following preliminary report:

* * * * * * * * * * * * *

The District of Columbia was created to be the seat of government of the United States, and Washington was laid out as distinctively a capital city. The first consideration in its planning was the location of the public buildings and the grounds relating to them. In determining these locations each site was selected in reference to every other site. The lines of communication between the various departments were studied, and care was taken to provide not alone for convenience, but also for beauty and dignity. The original plan of Washington, having stood the test of a century, has met universal approval. It is the departures from that plan that are to be regretted and, wherever possible, remedied.

* * * * * * * * * * * * *

NECESSITY FOR COMPREHENSIVE TREATMENT.

The development of Potomac and Rock Creek parks, the creation of a park along the Anacostia, and the increasing use of the Soldiers' Home grounds for park purposes, all call for a study of a means of connection among the parks, so as to bring into one system the diversified attractions that the parks, when developed, will offer. The positive squalor which to-day mars the entrance to almost every one of the parks is too apparent to need discussion.

Aside from the pleasure and the positive benefits to health that the people derive from public parks, in a capital city like Washington there is a distinct use of public spaces as the indispensable means of giving dignity to government buildings; and of making suitable connections between the great departments. When the city of Washington was planned under the direct and minute supervision of Washington and Jefferson the relations that should subsist between the Capitol and the President's House were closely studied. Indeed, the whole city was planned with a view to the reciprocal relations that should exist among public buildings. Vistas and axes; sites for monuments and museums; parks and pleasure gardens; fountains and canals; in a word, all that goes to make a city a magnificent and consistent work of art were regarded as essentials in the plans made by L'Enfant under the direction of the first President and his Secretary of State.

Nor were these original plans prepared without due study of great models. The stately art of landscape architecture had been brought over seas by royal governors and wealthy planters; and both Washington and Jefferson were familiar with the practice of that art. L'Enfant, a man of position and education, and an engineer of ability, must have been familiar with those great works of the master Lenôtre, which are still the admiration of the traveler and the constant pleasure of the French people. Moreover, from his well-stocked library Jefferson sent to L'Enfant plans "on a large and accurate scale" of Paris, Amsterdam, Frankfort, Carlsruhe, Strass-

burg, Orleans, Turin, Milan, and other European cities, at the same time felicitating himself that the President had "left the planning of the town in such good hands."

CHANGES MADE IN THE L'ENFANT PLAN.

It has so happened that the slow and unequal development of the city during the century of its existence has worked changes in the original design, and to a certain extent has prevented the realization of the comprehensive plan of the founders. As a result there has been a lack of continuity in the parks, and spaces like the Mall, that were designed for development as a unit, have been cut into pieces, some of which have been improved, some have been sold to private persons, and some have been diverted to uses so absolutely at variance with the original idea as seriously to detract from the dignity of the buildings these spaces were intended to enhance.

Happily, however, nothing has been lost that can not be regained at reasonable cost. Fortunately, also, during the years that have passed the Capitol has been enlarged and ennobled, and the Washington Monument, wonderful alike as an engineering feat and a work of art, has been constructed on a site that may be brought into relations with the Capitol and the White House. Doubly fortunate, moreover, is the fact that the vast and successful work of the engineers in redeeming the Potomac banks from unhealthful conditions gives opportunity for enlarging the scope of the earlier plans in a manner corresponding to the growth of the country. At the same time the development of Potomac Park both provides for a connection between the parks on the west and those on the east, and also it may readily furnish sites for those memorials which history has shown to be worthy a place in vital relation to the great buildings and monuments erected under the personal supervision of the founders of the Republic.

The question of the development of these park areas forces itself upon the attention of Congress. Either this development may be made in a haphazard manner, as the official happening to be in charge of the work for the time may elect; or it may be made according to a well-studied and well-considered plan devised by persons whose competence has been proved beyond question. Such a plan, adopted at this time and carried out as Congress may make appropriations for the work, will result in making Washington the most beautiful capital city in the world.

SENATE ORDERS THE PREPARATION OF A PLAN.

The action of the Senate in ordering a comprehensive plan for the development of the entire park system of the District of Columbia is the resultant of two movements—one popular in character, the other technical.

* * * * * * * * * * * * *

APPOINTMENT OF A COMMISSION.

On March 19, 1901, the subcommittee of the District committee having the matter in charge met the representatives of the Institute of American Architects and agreed to the proposition of the latter that Mr. Daniel H. Burnham, of Chicago, Ill., and Mr. Frederick Law Olmsted, Jr., of Brookline, Mass., be employed as experts, with power to add to their number. These gentlemen accepted the task, and subsequently invited Mr. Charles F. McKim and Mr. Augustus St. Gaudens, of New York, to act with them in the preparation of plans.

* * * * * * * * * * * * *

THE RAILROAD PROBLEM.

After a detailed examination of the topographical features of the District of Columbia, the Commission drew up preliminary plans. They were then forced to

the conclusion that an adequate treatment of the park system depends upon the exclusion of the Baltimore and Potomac Railroad from public grounds, so as to allow that dignified approach to the Capitol for which the Mall was originally designed.

The occupation of the Mall by the railroad dates back about thirty years, at which time, in order to secure competition in freight and passenger traffic, the then local government of the District of Columbia granted the lands, and subsequently Congress confirmed the grant. In extenuation of the original occupation, it may be urged that the space was then no better than a common pasture and that the railroad but took the place of the canal which it paralleled; so that conditions were bettered by the change, as undoubtedly proved to be the case. Be that as it may, the railroad holds the property by a title good in law and in equity; and by virtue of a recent act of Congress the railroad space has been enlarged, in consideration of the surrender of street trackage and the proposed elevation of the tracks within the city of Washington.

It so happened that the chairman of the Commission, Mr. Burnham, is the architect of the Pennsylvania Railroad's new station at Pittsburg, and after his selection as a member of the Commission the construction of the Washington station was placed in his hands. After consultation with the subcommittee, Mr. Burnham proposed to the president of the Pennsylvania Railroad that the station be built on the south side of the Mall and lands adjoining. The architectural and other advantages of the proposed site were set forth with such vigor as to command serious consideration. There the matter rested for a time.

EUROPEAN STUDIES.

The Commission, in order to make a closer study of the practice of landscape architecture as applied to parks and public buildings, made a brief trip to Europe, visiting Rome, Venice, Vienna, Budapest, Paris, London, and their suburbs. Attention was directed principally to ascertaining what arrangement of park areas best adapts them to the uses of the people, and what are the elements that give pleasure from generation to generation, and even from century to century. The many and striking results of this study will appear in the discussions that follow.

It was during the stay of the Commission in London that President Cassatt announced to Mr. Burnham his willingness to consider the question, not of moving the Baltimore and Potomac station to the south side of the Mall, but of withdrawing altogether from that region and uniting with the Baltimore and Ohio Railroad Company in the erection of a union station on the site established by legislation for the new depot of that road, provided suitable legislation be secured to make compensation for the increased expense such a change would involve, and provided, also, that the approaches to the new site be made worthy of the building the railroads propose to erect.

THE UNION STATION.

Subsequent examination convinced the Commission that, from an æsthetic standpoint, there are insuperable objections to the depot site provided by law. The chief objection is that were the station to front on C street, a train shed 800 feet wide would be thrown across Massachusetts avenue, one of the great thoroughfares of the city. Not only would the vistas be blocked by a commercial building, but also the street would be carried underneath this enormous structure in a tunnel so long as to cause the avenue to be avoided by traffic. The Commission thereupon proposed a site fronting on Massachusetts avenue, and again the officials of the railroad company consented to a change of location.

The plans call for a station nearly 50 feet wider than the Capitol, the building to be of white marble, the facade to be classical in style of architecture, and the construction and arrangements to be so planned as to make this station superior to any structure ever erected for railway purposes. Facing the Capitol, and yet not too near that edifice, the new station will front upon a semicircular plaza, 600 feet in width, where bodies of troops or large organizations can be formed during inaugural times or on other like occasions. Thus located and constructed, the union depot will be in reality the great and impressive vestibule to Washington.

It should be said here that in considering the views of the Commission, and in reaching his decision, the president of the Pennsylvania Railroad looked at the matter from the standpoint of an American citizen, saying in substance that he appreciated the fact that if Congress intended to make of the Mall what the founders of the city intended it to be, no railroad should be allowed to cross it; and that he was willing to vacate the space provided the matter could be arranged without sacrificing the interests of the stockholders of the Pennsylvania Railroad.

This conditional consent on the part of the railroad removed the one great obstacle to the preparation of adequate plans for the improvement of the city. Lesser obstacles, such as the lack of surveys of the oldest parks in the District and the difficulties of getting together the widely scattered data, have been surmounted. On the other hand, the work has been much lightened by the excellent topographical maps of the District outside of the city, prepared by the Coast and Geodetic Survey, and by the uniform courtesy of the Engineer Commissioner of the District and other officials, who have willingly given all the assistance in their power.

CLIMATIC CONDITIONS IN WASHINGTON.

On beginning work the Commission was confronted by the fact that while from the first of October till about the middle of May the climatic conditions of Washington are most salubrious, during the remaining four and a half months the city is subject to extended periods of intense heat, during which all public business is conducted at an undue expenditure of physical force. Every second year Congress is in session usually until about the middle of July; and not infrequently it happens that by reason of prolonged or special sessions, during the hottest portion of the summer the city is filled with the persons whose business makes necessary a more or less prolonged stay in Washington. Of course nothing can be done to change weather conditions, but very much can be accomplished to mitigate the physical strain caused by summer heat. Singularly enough, up to the present time the abundant facilities which nature affords for healthful and pleasant recreation during heated terms have been neglected, and in this respect Washington is far behind other cities whose climatic conditions demand much less, and whose opportunities also are less favorable.

In Rome throughout the centuries it has been the pride of emperor and of pope to build fountains to promote health and give pleasure. Mile after mile of aqueduct has been constructed to gather the water even from remote hills, and bring great living streams into every quarter of the city; so that from the moment of entering the Eternal City until the time of departure the visitor is scarcely out of sight of beautiful jets of water now flung upward in great columns to add life and dignity even to St. Peter's; or again gushing in the form of cascades from some great work of architect or sculptor; or still again dripping refreshingly over the brim of a beautiful basin that was old when the Christian era began. The Forum is in ruins, basilicas and baths have been transformed into churches, palaces have been turned into museums; but the fountains of Rome are eternal.

NECESSITY OF FOUNTAINS.

If all the fountains of Washington, instead of being left lifeless and inert as they are during most of the time, should be set playing at their full capacity, they would not use the amount of water that bursts from the world famous fountain of Treve or splashes on the stones of the piazza of St. Peter's. At the Château de Vaux-le-Vicompte, near Paris, the great landscape architect, Lenôtre, built cascades, canals, and fountains using 5,000,000 gallons of water per day; and the fountains of Versailles are the wonder and delight of the French people.

The original plans of Washington show the high appreciation L'Enfant had for all forms of water decoration; and when the heats of a Washington summer are taken into consideration, further argument is unnecessary to prove that the first and greatest step in the matter of beautifying the District of Columbia is such an increase in the water supply as will make possible the copious and even lavish use of water in fountains.

PUBLIC BATHS AND GYMNASIUMS.

Scarcely secondary in importance to fountains are public baths. An instructive lesson in this respect may be found in the experience of the Metropolitan Park Commission in taking over and equipping Revere Beach, immediately north of Boston. There the squalid conditions prevailing in former years have been changed radically; and a well-kept and well-policed beach, sufficient in extent to accommodate over 100,000 persons, is publicly maintained; no fewer than 1,700 separate rooms are provided for bathers, and bathing suits are furnished at a small expense. The receipts pay for maintenance and yield a surplus of several thousand dollars for repairs and extensions.

In Washington the extensive use of the present bathing beach shows how welcome would be the construction of modern buildings with ample facilities. Moreover, the opportunities offered by an extended river front should be utilized in furnishing opportunities for free public baths, especially for the people of that section of the city between the Mall and the Potomac.

LOCATION OF PUBLIC BUILDINGS.

The location of public buildings has received the very careful consideration of the Commission. In general terms their conclusions are:

First. That only public buildings should face the grounds of the Capitol.

Second. That new department buildings may well be located so as to face Lafayette Square.

Third. Buildings of a semi-public character may be located south of the present Corcoran Art Gallery, fronting on the White Lot and extending to the park limits.

Fourth. That the northern side of the Mall may properly be used by museum and other buildings containing collections in which the public generally is interested, but not by department buildings.

Fifth. That the space between Pennsylvania avenue and the Mall should be occupied by the District building, the Hall of Records, a modern market, an armory for the District militia, and structures of like character.

The grounds on which these conclusions rest will be found in report of the Commission.

IMPROVEMENT OF THE MALL.

The Mall, originally designed to form a park-like connection between the Capitol and the White House, was laid out in such a manner as to emphasize the character of Washington as the capital city. The predominating ideas in its treatment

were dignity and beauty. The entire space was intended as a grand setting for the two great buildings of the nation. The new plans aim to restore those relations and to carry to their logical conclusion those intentions. In the plans for the improvement of the Mall, therefore, the Commission have endeavored to point the way to a realization of the greatest beauty and the utmost dignity.

In outline, the Commission propose, by a simple device of planting, to bring the Monument into the Capitol vista, so that the observer standing on the western terrace of the Capitol shall look off over a green carpet, bordered on each side by four rows of elms, to the Monument, rising from a platform in the form of a terrace. Walks and driveways, shaded by the ends, give access from east to west; while the streets continue on the surface level from north to south. Behind these trees should stand the white marble buildings devoted to the scientific work of the Government.

The distance from the Capitol to the Monument is about 1½ miles, and the reclamation of the Potomac flats has added nearly a mile to this space, thus giving opportunity both for an extension of the treatment accorded to the Mall and also for a new and great memorial to stand on the axis of the Capitol and the Monument, near the bank of the Potomac. Abraham Lincoln is the one name in our national history that the world has agreed to couple with Washington's, and as no adequate memorial of him exists at this capital the place and the opporunity would seem to agree in setting apart this great site as an eminently suitable location for a Lincoln monument.

Again, a garden placed directly west of the Monument not only gives added impressiveness to that structure, but also creates an axial relation with the White House; and in this simple and direct manner the L'Enfant idea of placing the Washington memorial on the axis of both the Capitol and the White House is realized. Moreover, this garden, surrounded by terraces carrying groves of elms, becomes the gem of the entire park system.

South of the Monument the space is devoted to out-of-door sports—to gymnasiums and playgrounds, to swimming pools in summer and skating parks in winter. Here, too, is a great rond-point which fittingly may carry some symbolic figure typical of the Republic.

ROCK CREEK CONNECTIONS.

In the new plans the Lincoln memorial site becomes a point of divergence from which proceed the driveway leading southwesterly to the Potomac Park, the Memorial Bridge leading directly to the mansion house at Arlington, and the embankment carrying the driveway to the mouth of Rock Creek, and thence through the picturesque valley to the Zoological and the Rock Creek parks.

The valley of Rock Creek forms the natural connection between the Potomac Park and the Zoological and Rock Creek parks. There is no question in the minds of the Commission or of this committee that the most convenient, the least expensive, and the most satisfactory way of treating Rock Creek is to construct roadways along the banks, and secure such control of the spaces along the top of the ravine as will allow adequate policing. A stream, even a small stream, running between picturesque banks in the midst of a city like Washington, offers opportunities for park improvement that should not be ignored. The alternative of arching over the creek and filling in between the banks for the purpose of constructing a boulevard on a level with the streets is highly expensive and is dangerous in case of the sudden melting of snows or of a cloudburst in the upper valley.

For the section west of Rock Creek the plans not only contemplate improving the rare opportunities for enjoying the beauties of the Potomac gorge, even to the

Great Falls, but they also provide suitable diagonal connections (through picturesque valleys) with Rock Creek Park.

Between the parks on Rock Creek and the grounds of the Soldiers' Home the connection is, first, by way of the valley of Piney Branch, a region not less beautiful than the Rock Creek Valley; and second, along Savannah street widened into a parkway. This treatment allows a fine reciprocity between the proposed Municipal Hospital buildings and the new structure to be erected at the Soldiers' Home.

Suitable connections are planned also between the Home and the Anacostia River, taking in certain wooded hills that command extended views of the city. The swampy valley of the Anacostia becomes a park for boating, swimming, and skating purposes, with encircling drives, walks, and pleasure grounds.

THE ANACOSTIA WATER PARK.

A water park on the upper stretches of the Anacostia as planned is calculated to furnish a much-needed variety in the District park system. Those persons who have visited the Thames on the occasion of a London holiday will readily appreciate the enormous use which the people make of that narrow stream, the surface of which at times seems to be literally covered with the different kinds of light craft. In Belle Isle Park, in the city of Detroit, the creation of shallow lakes and connecting canals develop boating in summer and skating in winter to such an extent that often tens of thousands of people daily enjoy an island that for years was little else than a series of marshes. Given the opportunities for enjoyment, the people are quick to seize upon them; and, once realized, it seems astonishing that chances for pleasure have so long been neglected.

The creation of a water park, with driveways surrounding it, being the suggested treatment of the Anacostia above the head of navigation, the lower portion of the stream to its junction with the Potomac may well be treated as proposed by the engineers, namely, by the construction of masonry quay walls along the borders of the channel and filling in the flats. The present limited wharf frontage of Washington makes it certain that as the city increases in size the section of the Anacostia frontage from the mouth of the river to the Navy-yard will be needed for business purposes. It is important, however, that a broad parkway connection be maintained along the river in order to connect the Anacostia Park with the Potomac Park, and for this work a line of stone quays, overlooked by terraces, as on the Seine in Paris, may be used to excellent advantage.

POTOMAC PARK.

The long island lying between the Washington channel and the main channel of the Potomac should be treated in such a manner as to afford shaded drives and walks along the water, with frequent boat landings, so as to make the park accessible to the section of the city which it adjoins. The work of the engineers has been of such a character that the island can be developed at comparatively small expense, and at the same time a portion of the city in great need of park space will be well accommodated.

THE RIVER FRONT.

The necessity of rebuilding the wharfage on Washington channel, which recently has come into the undisputed possession of the District of Columbia, makes it necessary to decide as to the character of the new wharves. The War Department has recently established the Engineers' School and the War College on what is known as the Arsenal Grounds, and this property will be greaty improved within the near future. The rebuilding of the wharves should be in keeping with these prospective improvements; and fortunately the rental value of the frontage will be suf-

ficient to provide for the ultimate payment of the cost of permanent work as well as the maintenance of the same.

The ebb and flow of the tide in the channel should not be impeded by slips that collect refuse, but should be accelerated by a continuous line of masonry quays, to correspond with the miles of masonry work already constructed by the engineers to form the river walls of the Potomac Park. As business demands larger space, the piling should be arranged so as to provide for clear tidal flow. Then the wide thoroughfare known as Water street may be treated as a driveway between the Potomac Park and the Anacostia Park.

THE PLANS AND MODELS.

In working out their plans the Commission found it necessary to have prepared, under their direction, models in plaster of the section of the city from the Library of Congress westward to the Potomac. These models, so indispensable to the designers, become the guides for carrying out the plans, so that, no matter how long a period of time the work may cover, there need be no departures from the approved designs.

In order to give a more detailed treatment of particular features than models on so small a scale afford, detailed architectural drawings first have been made and then have been rendered by capable illustrators, so that the appearance of the completed work may be studied. Through the courtesy of the trustees of the Corcoran Museum of Art the models and studies have been placed on exhibition at that gallery, where they are open to public inspection.

CONCENTRATION OF AUTHORITY NECESSARY.

The plans as prepared call for systematic, continuous work, which must of necessity be prolonged over a considerable number of years. The parks and reservations are now under the control of various officers and boards, all working with zeal, indeed, but not always in harmony and co-operation. In order to promote economy and efficiency a park commission should be created and in its charge the entire park system of the District of Columbia should be placed. This commission should be national rather than local in character, and should do its work under the immediate control of the Chief Executive of the United States.

THE COST OF CARRYING OUT THE PLANS.

Obviously it is impossible to make any detailed estimate of the cost of carrying out the plans submitted. Nor is such an estimate necessary. From time to time new public buildings must be constructed, public spaces must be secured and improved, and those facilities which city life demands must be supplied. So fast as those needs shall be realized let the work be done in accordance with plans that are at once comprehensive, simple, adequate, and dignified. In such manner only can there be a development of the District of Columbia worthy of the nation.

NAPLES' TAMMANY OVERTHROWN.

Speaking of the recent municipal election in Naples, the New York *Evening Post* of November 13, 1901, remarked that "even Philadelphia need not despair of shaking off her present unenviable distinction of being the worst governed of civilized cities." Conditions were so bad in Naples that a royal commission, a sort of Italian "Lexow Committee," was instituted in November, 1901, to investigate conditions and to administer the affairs of the city. The commission has recently published its report in two bulky volumes, which read very much like the descriptions of the operations of the Tweed ring.* Tammany methods are evidently not confined to New York. The following account of the Neapolitan struggle for civic decency is taken from *The Nation* of January 23, 1902:

When the royal decree of November 8, 1900, instituting a commission of inquiry into all the acts of the municipal administrations of the city of Naples appeared, we felt a certain incredulity as to the result, remembering the innumerable *inchieste* that have been ordained and completed during the forty years that have elapsed since Garibaldi entered, inaugurating the Unity of Italy under the house of Savoy, and the Bourbons fled, leaving him victor all along the line. Something has resulted from the numerous public and private "inquiries" made in the island of Sicily; but in Naples, from the hour when Garibaldi quitted the city for Caprera, and the Moderates, taking possession, inaugurated their partisan reign, to their downfall in 1876 and the instalment of their successors, the Left, alias Progressists, Liberals, Reformers—again, to the overthrow of these, and the dictatorship of Depretis-Crispi, of Crispi alone—again, through the successive reigns of Rudini-Nicotera, of the "law by decree" ministry with the horrors of 1898—up to last September things had gone from bad to worse, and King Camorra, from a pretender to an uncrowned sovereign, had continued his triumphal career until, at the death of Humbert, he was the uncontested, incontestable, inviolable monarch of Naples and the provinces.

MISERY OF PLEBS, INFAMY OF RULERS.

Your readers are not unacquainted with the performances, character and attributes of King Camorra. They have read Villari's descriptions, which have grown more and more vivid and emphatic, from his first Southern Letters to his pictures of the misery and ignorance of the plebs, the corruption, oppression and general infamy of the ruling and wealthy classes, culminating in the photographs of the "disembowelment" of Naples, the robbery of the 100,000,000 destined for the housing of the poor—seized by the municipal authorities and their clients for themselves with connivance of the provincial authorities and sanction of the successive governments at Rome; or, if not direct sanction, non-interference, in order to retain the votes of the electors who seconded their choice of candidates. Nor has your present correspondent failed to expose the situation, which could not be exaggerated, either in itself or in its fatal consequences to the entire life of Italy, even as cancer taints the whole system, poisoning its very heart's blood. Cavour, who cannot be justified

*Relazione sulla Administrazione Comunale, R. Commissione D'Inchiesta per Napoli, Rome, Minister of the Interior, 1901. 4to, 2 vols., 832 + 889 pp. Paper.

for the means which he employed to oust the entire party of action which had freed Naples from the Bourbon—in order to install the stanch supporters of his policy, the champions of the House of Savoy—was fully aware of the crucial problem involved in the annexation of the southern provinces, especially of the Neapolitan, as affecting the moral unity of the new kingdom. In the years that elapsed between 1793 and 1860—if we except a brief moment at the commencement of the reign of Ferdinand—the one aim of the Bourbons was to exterminate all intelligent, patriotic citizens by death on the scaffold. Between the 31st of October and the 11th of November, 1793, 120 physicians, professors of the university, military and naval officers, and fifteen priests, were hung in the market-place; thousands were imprisoned and banished, their property sequestrated, their families reduced to misery.

RECORDS BURNED BY ROYAL ORDER.

The executions and murders that took place during the reign of terror, 1799-1800 can never be enumerated, as all the documents of the famous Giunta were burned by order of the king, on his restoration. The same system was continued in 1821, in 1830, and again in 1849. At the same time, every effort was made to maintain the plebs in a state of ignorance, superstition and corruption.

Garibaldi and his secretary-general, Dr. Agostino Bertania, at once recognized the dangerous condition of the masses steeped in misery, vice and corruption. They set to work to reorganize the police, which the Bourbons had used solely in order to persecute the patriots and to enlist in their service the Camorrists and malefactors. Garibaldi abolished the secret service fund, established twelve infant schools in the twelve quarters of the city; a military college for the sons of the poor; allotted to the communes the product of the *octroi;* commenced the abolition of lotteries, and introduced the system of saving banks; decreed the sequestration of ecclesiastical property. To the short term of Garibaldian administration also belongs the first attempt at sanitation and the disembowelment of Naples. Cavour, who had made a special study of Naples as early as 1847, and then wrote that "no province of the peninsula had suffered equally during centuries of domination by foreigners such excessive feudal oppression, undergone such bloody revolutions, or such sanguinary oppression," at once recognized the importance of thorough reorganization of the entire system of government, administrative, educative, moral and material. In a memorable treatise on Italian railroads, he dwelt upon the necessity of extending the Neapolitan lines to the toe and heel of the southern provinces, and did his utmost to encourage the influx of Italian and foreign capital, regarding the population, with all its ignorance and corruption, as frugal and naturally intelligent, well suited to form an active industrial community.

CAVOUR'S FORESIGHT AND COUNSEL.

He sent one of his ablest helpers, Vittorio Sacchi, to study the finances of the city and provinces. As secretary to the first lieutenant-general, the Prince of Carignano, he sent Costantino Nigra, with instructions to found and encourage various industries. "If," he wrote, "we do not place the various provinces of Italy, and the southern ones especially, in a position to increase their production, we shall encounter a sad future. Taxes must be increased, but first we must increase the contributive capacity of the population by stimulating production and the formation of wealth." So complicated did the state of Naples appear to Cavour that he did not hesitate to admit the possible necessity of special administrative measures to be voted by parliament, even as Mazzini also counseled special administration for the islands. Up to the last moment of his life, the Neapolitan problem occupied

Cavour's thoughts. "I am grieved by the situation at Naples," he wrote, "but neither surprised nor discouraged. People cannot be regenerated in a week, nor can political difficulties be overcome by gymnastics. The regeneration of Naples depends chiefly on the strength and the honesty of the government. We must prepare to resist all pressure, all political influence at the cost of exposing the ministry to extreme unpopularity." But June, 1861, deprived Italy of the great statesman, and his successors managed in a very short space of time to efface every trace of Garibaldi's efforts and of Cavour's good intentions.

ATTITUDE OF VICTOR EMMANUEL III.

Your experience of Tammany Hall proceedings can give but a faint idea of the state of Naples at the death of King Humbert; and that his son and successor was fully aware of the depths of degradation to which his native city was reduced is a fact well known among his intimates, although he never, during his father's life, interfered, directly or indirectly, with political or administrative affairs. His cordial welcome to Zanardelli (who, throughout his entire career, has not a blot on his moral character, and who, during his brief months of power under Kings Vittorio and Humbert, had struck the note of morality in a key quite too high for the ears of most of his colleagues) was not unconnected with his desire to see a moral regime introduced and supported in the south. The deepest depths of corruption had meanwhile been reached in every department of municipal and, as we shall soon see, provincial administration, while the wholesale plundering of the charitable institutions had reached a point which, if surpassed, would leave nothing more even for the plunderers. *La Propaganda,* a newspaper conducted chiefly by young Socialists, attacked on front, rear and flank the communal administration personified in the Syndic Summonte, strongly supported by the now ex-Deputy Casale. Many such attacks had been made by honest newspapers, Moderate, Liberal and Clerical, but the results had been zero, the government either interfering or ignoring the questions, so that the authors of the attacks have generally undergone heavy sentences for libel, defamation, calumny. But Casale, unable to keep silence in the face of the direct accusations made against him, brought an action for libel against the director of *La Propaganda.* He believed that he should gain a verdict by placing the action on political grounds, by attacking the Socialists as such; but neither public opinion nor his judges fell into the trap. All understood the honor of Naples was at stake; and as the pillagers and plunderers had gradually restricted the number of the sharers of the spoils, many who had been excluded came forward with their testimony.

THE CONDEMNATION OF CASALE.

The witnesses summoned by Casale to attest his honesty and uprightness declined the office. Called upon to explain his private resources, to say how he managed to live like a prince on a pauper's income, he tried to withdraw the action; but the public minister, seeing that even the Syndic Summonte, when summoned, failed to appear, declared that no other witnesses for the defense need be summoned, and, instead of drawing up a case for the plaintiff Casale, denounced him severely, and expressed his surprise that a public officer (Comm. F. S. Gargiulo, substitute of the procurator-general at the court of cassation in Naples) should have come forward to maintain the honesty of Casale.

The sentence of the tribunal was most severe. It was found that "the facts asseverated by *La Propaganda* were fully proved." The conclusion of the sentence is tremendous:

to a prudent retreat, is joined the public voice, which continues terrible and incessant, and has reached high functionaries, who, present at the trial, were unable to refute it. This element cannot be ignored, as it but sums the affirmations which have long resounded throughout the country concerning the extraordinary influence exercised by Casale under cover of his political principles. The immorality thence emanating is such as to nauseate every honest conscience, and to affirm this in a verdict is the commencement of regeneration."

In consequence Casale was compelled to resign his seat in parliament and in the provincial council. The municipal council, directly aimed at by the verdict, had, after a vain struggle, to resign. Then a proposal made in December, 1899, by eleven members of parliament, but rejected, was revived, and, despite the protests of the Neapolitan press, which with three exceptions was in the pay of the spoilsmen, carried the day; the then president of the council of ministers, Senator Saracco, proposing a royal commission of inquiry, with plenipotentiary powers, and appointing a royal commissioner to administer the commune of Naples.

THE GUILT OF THE MODERATE PARTY.

The report of the commission, which occupies two folio volumes of 900 pages each, touches but slightly on the years preceding 1876, so that the Moderate party does not really come in for its just share of blame for corruption, malversation and alliance with the Camorra; but enough is proved to show that to it belongs the beginning of the hideous story. It dwells briefly on the administrations between 1876 and 1896, giving strict account of the four years that elapsed between 1896 and 1900. In 1896 arose the administration which, in the words of the commissioners, "was, headed by Summonte and his followers, the commencement of the shameful corruption, the disastrous evils, which culminated in the catastrophe of 1900." Some of the councillors, after denouncing the general state of corruption in all grades of the administration, succeeded in getting a commission of inquiry. Appalling revelations were made, but the whole affair was quashed by Casale and Summonte. The same happened with the inquiry into the conduct and condition of the municipal guards. The jobbery in the new contract for the water works of the Serino, for electric illumination for the tramways, takes away one's breath by its colossal scale, its flagrant impudence. The municipal technical council protested in vain; the corrupt domination of Deputy Casale overpowered all attempts of brave and honest citizens. The secretary-general of the municipality, Cammarota, resigned his post, being unable "to fulfill his duties and to secure the public administration of the city." Despite the constant cooking of the budgets, enormous deficits continued to increase. The remuneration of the servants of the municipality was increased from 3,000 to 9,000 lire per month. New posts were created, and, of course, all the employed were converted into electoral agents and actors.

CORRUPTION IN PUBLIC INSTRUCTION.

The corruption in the educational departments passes description. Masters and mistresses, many without certificates, were appointed, after paying a fixed tax. Parents of children were induced to vote on the promise of special advantages to their children. One assessor of public instruction writes: "The greater number of schoolmasters belong to the Association of Teachers; they are the worst of their class, and are controlled by Marzano, the sectional director, who is allowed a free hand by the administration, and uses it to ruin the schools. The directors and directresses coerce the masters and mistresses, who in their turn work upon the parents on the *do ut des* principle." This association secured 1,500 votes, and

united to that of Casale Aliberti, controlled 6,000 votes. Payments, gifts, etc., on the eve of the elections, surpassed half a million.

A small minority protested in vain; the Summonte administration had bought up, with three exceptions, the entire Neapolitan press. The director of the *Corriere di Napoli* had headed his leader on the nomination of Summonte for Syndic with the words "La Vergonga é Consumata," but, appointed inspector of the tramways, suddenly discovered the perfection of the new Summonte administration. The editors Rosolino and Rota were also employed by the municipality and their reports duly corrected by the Syndic. But this was not all, as De Martino, who was the first to reveal in parliament the iniquities of the Summonte administration, testified. The responsibility of the trinity Summonte, Casale, Scarfoglio, cannot be separated. No favor could be obtained from the Syndic without the intervention of Scarfoglio, editor of the *Matin*, or his substitute, Vincenzio Candia. These creatures sold their patronage for hard cash—12,000 lire for the concession of the baths, 30,000 for the prevention of a company for electric illumination, 18,000 for a tramway company, while in the "scandalous loan contract" 500,000 was divided between Scarfoglio, Summonte, Casale and one Delieto.

Not only Scarfoglio, the cleverest journalist in Naples, is exposed, but his wife, the great novelist, Matilda Serao, is incriminated with chapter and text as a saleswoman of places and posts. The details are all too nauseous to continue.

APPEAL TO THE PEOPLE.

The sensation created throughout the country may be imagined, but people were prepared to hear the worst. "Could any sound thing come out of Naples?" Zanardelli thought there could, and the king seems to have been of this opinion. So the prime minister refused to prolong the sojourn of the royal commissioner at the head of the administration, and the general elections were announced. The government abstained from the faintest pressure. The electors were left for the first time severely alone. The Camorra united their forces, not putting forward as candidates either Casale or Summonte, but hoping to secure the election of the rank and file of their followers. Not one succeeded. All political questions were tabooed; the candidates supported were "honest men," or at least such as had not a stain on their reputation. Many of them had been among the first and the most constant in exposing the infamy of the last administration when at the zenith of its power. About an equal number of Catholics and Moderates have been elected, and, for the minority, all the Socialist candidates put forward. The *Pungolo Parlamentare* and the *Roma*, the two honest newspapers never tainted by, and always declared opponents and denouncers of, the Camorra, are jubilant. They from the first appealed to Zanardelli and to Giolitti to allow the elections to take place at once in order to prove to the world that not all Naples was corrupt, but merely a certain number of malefactors whom circumstances and sins of omission and commission on the part of the central government had rendered omnipotent. The inquiry had proved the culpability of these usurpers; only the electors of Naples could pass sentence on them by rejecting them with contumely and unanimously. The sentence has been passed and can never be revoked. It now remains for the judicial authorities to perform their part.

THE WRITHINGS OF THE MALEFACTORS.

Naturally, the condemned are vociferous in proclaiming their innocence. Scarfoglio dedicates twenty-five columns to prove that only envy of his genius and success as a journalist led to the accusations, and promises defiantly to triumph

over all his calumniators. Matilda Serao fills the papers of Berlin, Vienna, and, where she can secure admittance, of Paris with her lamentations, and insults the entire Italian race and nation, including the dead king and his young successor. Summonte has written a pamphlet to prove the virtue and beneficent results of his administration. But no one heeds any one of the protesters. All know that the accusations are true and "proven." The grand question now is how to repair the evil accomplished, and to prevent the upas tree cut down to its roots from putting forth fresh shoots from the undersoil. A very careful perusal of the two volumes impresses one with the immense difficulties of the situation. Local taxation is enormous and cannot be increased to supply the two million annual deficit or the ten millions of accumulated deficit. But of the taxes voted about 30 per cent. are unpaid, and the non-payment has been connived at, nay, condoned, by the municipality. Most of the remedial measures proposed by the commissioners have been accepted by the government. Zanardelli, in his grand speech of December 13, which was applauded by all parties and sections of the house, has pledged the government and the nation to use every effort for the redemption of the southern provinces at any cost or sacrifice—not by violent, spasmodic measures, but by a gradual system of necessary public works, such as the aqueduct of the Puglie. Meanwhile, the inquiry into the administration of the charitable institutions and of the provincial administration is to be carried on without delay. At the same time the inquiry into the municipal administration of Palermo has just terminated and the municipal council dissolved.

PROMISE OF ITALY'S RENASCENCE.

Italy on the whole is looking up. Her finances have never been in such a flourishing condition as at the present moment; her commerce and industries are on the increase; gold is nearly at par. It was a fitting moment for this moral inquiry to be set on foot at the moment of her ascertained material progress. I find many "competent" persons, who, five years ago, despaired, now really hopeful, yet anxiously watching events, and awaiting the results of certain trials of notorious criminals belonging to the Mafia, who have hitherto escaped conviction. We confess ourselves to a certain amount of hopefulness, but it is accompanied by a much larger portion of fear and trembling.

LIBRARY OF THE UNIVERSITY OF CALIFORNIA

BOOK REVIEWS.

SUBSTITUTES FOR THE SALOON.

Substitutes for the Saloon. By RAYMOND CALKINS. An investigation made for the Committee of Fifty, under the direction of Elgin R. L. Gould, Francis G. Peabody and William M. Sloane, sub-committee. Boston, Houghton, Mifflin & Co., 1901. 12 mo, 397 pp., $1.30, net.

The Committee of Fifty was organized in 1893 for the investigation of the liquor problem, and was divided into four sub-committees, "to consider respectively the physiological, legislative, ethical and economic aspects of the drink question." The legislative and economic sub-committees published their reports in 1897 and 1899 respectively. The present volume is the outcome of investigations conducted by the ethical sub-committee. The plan followed by the committee was to select an "experienced and sympathetic expert" to conduct the research and collect reports from a large number of local observers. "University students and teachers of economics and sociology, agents of charity organization societies, residents in social settlements, and many other investigators with special qualifications have participated in the research." The cities chosen for special study were San Francisco, Denver, St. Louis, Minneapolis, St. Paul, Chicago, Cincinnati, Cleveland, Buffalo, New Haven, New York, Boston, Philadelphia, Baltimore, Atlanta, New Orleans and Memphis. The book proper consists of a series of very interesting chapters by Mr. Calkins on the social characteristics of the saloon and the various possible substitutes for it based upon and illustrated by the experience of these cities, together with the results of certain British experiments. In the appendix are given in much abbreviated form several of the special reports received from local investigators.

The discussions of this book bear particularly upon problems of philanthropy and voluntary social organization, but they also touch in a vital way upon certain lines of municipal activity. The social obligations of cities are coming to be recognized more and more, and as the saloon question is one of the knottiest problems of city administration, the city necessarily becomes interested in any social expedients which promise to diminish the existing difficulties. In government reports, we find an expansion of foreign trade in beer as enthusiastically reported as an increase in the export of wheat or steel products, but at home we recognize that the consumption of liquor should be discouraged. From the standpoint of the dealer, however, the liquor traffic is like any other. He is looking for profits. He wants to sell his goods, and the more the merrier.

The consequence is that the saloonkeeper caters to the wants of the public in every profitable way. Primarily, of course, he depends upon the demand for alcoholic drinks, but in order to increase this demand and to fortify his business in the social life of the community, he tries to make his place attractive and to ally himself with the social interests of the locality. In a crowded city the homes of the workingmen are small and unattractive, public halls are inadequate, and rents are high; churches and schools are usually closed, except during sessions;

public urinals seldom exist, and, in brief, poor men and men of fairly moderate means lack decent opportunities for recreation, social life and personal comfort. The saloonkeeper, finding that it pays, proceeds to perform some of these neglected functions, but declines to take pay except in trade. The sale of liquor is his principal business, and if he can put men under obligations to him in manifold ways, they will feel constrained to buy and consume more of his goods.

The two fundamental difficulties in the way of the solution of the saloon problem are, therefore, these: First, a bad business is conducted for private profit, and while the public is striving to curtail the consumption of liquor, the trade is left in the hands of men to whose interest it is to increase that consumption. Second, a number of radically important social functions are left unperformed, either by private philanthropy or by municipal action, and the saloon is enabled by the performance of these to root itself firmly in the social economy, even though it prostitutes these public functions to private and harmful ends.

The remedy, as Mr. Calkins points out, is twofold. The business is bad and must be restricted by law. The saloon must be dislodged from its advantageous position. "Certain legislative enactments must plainly precede any successful effort to offer social substitutes for the saloon. For example, if no attempt is made to limit the number or location of saloons by law, the hopelessness of the problem becomes apparent."

But restrictive legislation by itself is of no avail. The fewer the saloons the more attractive they become. The dispensary system in use in South Carolina or the Gothenburg system would strike at one root of the problem by removing the business from the domain of private profits. Even this would not solve the difficulty, however, because it would simply cut off the social functions of the saloon, without transferring them to any other adequate agency.

The substitutes for the saloon, private and municipal, are examined at length by Mr. Calkins. They include every social device that tends to make the homes of the poor more habitable and the opportunities for social life, recreation and comfort more accessible. This book contains much information that is invaluable for church workers, philanthropists and employers who wish to perform a social service by establishing reading rooms, coffee houses, workingmen's htoels, etc. We must confine ourselves here to the consideration of municipal duty in the matter. The city should perform the public functions now performed by the saloon, and should remedy those public conditions which drive people to drink.

First, in the name of common decency, let the city provide an adequate number of public urinals and comfort stations, so that a man will not be under obligation to buy a glass of beer to pay the saloonkeeper for this service.

Second, let the city maintain municipal buildings in every locality, with library and reading room attachments, for the use of private clubs and for social gatherings. These buildings could be entirely free, or running expenses could be paid by charging a moderate rental for the use of public halls or clubrooms.

Third, let the school buildings be utilized to their full capacity by keeping them open as centers of play and social activity outside of school hours.

Fourth, let the city provide small parks and playgrounds, gymnasiums, public baths and swimming pools, so that summer and winter the opportunities for healthful exercise, physical recreation and cleanliness shall be guaranteed to the people of all classes.

Fifth, let the city provide for the culture and entertainment of its citizens by means of evening schools, popular lectures, concerts, and perhaps even municipal theatres.

Sixth, let the city apply itself to the solution of the housing problem.

These recommendations are not made categorically by Mr. Calkins, but are gleaned from his discussion running through many chapters. He shows how far Boston and New York are attempting to perform these functions. These suggestions are radical, but not alarming. They are radical only in the sense that they strike at the root of the matter. Mr. Calkins is of the opinion that the normal profits of the liquor business should in some way be diverted from private pockets and used in establishing and maintaining saloon substitutes. The criminal shortsightedness of cities has made the adequate performance of the functions above suggested almost impossible on account of expense. The $200,000,000 worth of franchises, which the city of New York has given away, would come handy for this purpose. Year after year millions are wasted in the excessive consumption of liquor, and millions are expended on a police force and charitable and correctional institutions to counteract in some measure the evil influence of the liquor traffic and the unhealthful conditions of life that tend to increase its influence. Certainly New York and the other cities of America can afford to perform the public functions now left to the saloon if they can afford anything.

Mayor Low is president of this Committee of Fifty, which has for nine years been studying the liquor problem. It is to be hoped that, whatever course he adopts with reference to the excise law, his administration will be able to accomplish something positive and worthy along the lines laid down in the report of the ethical sub-committee.

New York City. DELOS F. WILCOX.

BOOK NOTES.

Municipal Administration in Germany, as seen in the government of a typical Prussian city, Halle-on-the-Saale. By Edmund J. James, Ph. D., Chicago. University of Chicago Press, 1901. 8 vo., 93 pp., paper, 50c.

This monograph by Dr. James is an exceptionally valuable contribution to the literature of municipal government. Halle-on-the-Saale is an ancient German city, whish has in the last fifty years been brought into the current of modern life. The present population, 155,000, is five times as great as the population in 1850. The city is governed according to the general principles of Prussian municipal administration. It is interesting to note that in Halle, under the three-class voting system, there were in 1899, 17,699 qualified voters, of which number 140 constituted the first class, 914 the second and 16,645 the third. On page 26 Dr. James seems to infer that one taxpayer has a different voting strength from another in the same class in accordance with the relative amounts of their taxes. This is undoubtedly a wrong inference. Halle owns its own gas works, electric lighting plant and water works. Municipal ownership has proved very satisfactory, though its success in a German town does not go far to show that it would succeed under the radically different political and administrative conditions prevalent in American cities. Still Dr. James' monograph should be read by everyone interested in municipal ownership of public utilities in the United States.

City of Chicago Statistics is a bi-monthly publication of the "Chicago Municipal Library and Bureau of Statistics," recently established by authority of the city council on Mayor Harrison's recommendation. In the preface to the first issue, March, 1901, Mr. Hugo S. Grosser, city librarian and statistician, made this statement of purpose: "The publication called *City of Chicago Statistics* will be issued

bi-monthly. Its aim will be to give authentic information about the city of Chicago, in its principal phases of public life, namely, municipal administration, public health, education and commerce and traffic, each subject being treated in a number of statistical tables, which will be continued through the entire year." Five numbers were issued in 1901 in accordance with this plan, and the statistics of Chicago's municipal life are presented in a very interesting and enlightening series of tables. Under "Municipal Administration" there are ten tables showing statistics of the civil service department, street cleaning, garbage removal, water supply, fire protection, police, etc. Under "Public Health" there are five tables dealing with mortality, contagious diseases, sanitary inspection, and the public baths. Under "Educational" statistics are three tables giving facts with reference to school attendance and the public libraries. The fourth general division, "Commerce and Traffic," includes eight tables giving trade statistics secured though the co-operation of the Board of Trade. One of the features of this publication is the appendices, of which one or two are found in every issue, containing statistics on particular subjects covering many cities or many years of Chicago's history. One of these tables, in the May issue, is devoted to police statistics of twenty American cities for 1900, and gives facts in regard to the actual policy pursued in the regulation of vice by the police in these different places. Altogether, Chicago is to be congratulated upon having taken this step forward, and it is to be hoped that the work will be carried on permanently.

Geneeral Ordinances of the City of New York Under the Greater New York Charter (New York, Banks Law Publishing Co., 1901. 12 mo., 286 pp., leather, $2.50) is compiled and edited by George Whitfield Brown, Jr., of the New York bar. A glance at this book after a study of the charter makes one feel how insignificant the council of the metropolis must be, not to be able to invent ordinances enough to fill a larger volume. Enough provisions can doubtless be found, however, in these 286 pages of closely-printed matter to confuse the citizen and preserve the prestige of the "city fathers." The compiler says of the book that it is "the result of a pioneer attempt, attended with many difficulties, to ascertain and set forth conveniently for public information the municipal ordinances of general, as distinguished from special, purport and effect, now existing and in force throughout or in different parts of the consolidated city. The compilation is as complete as earnest effort and diligent search can make it. The text is as accurate as careful comparison with original documents or authentic copies can secure. The arrangement seems as convenient as conditions allow." The index of this volume could have been improved by being made more complete, but perhaps it will serve its purpose sufficiently well, considering the general unpopularity of a collection of city ordinances as a reference book. It should be noted that the Building Code and the Sanitary Code, being published separately, are not included in this collection.

Proposed Municipal Improvements for Harrisburg, Pa. (published by the executive committee, Harrisburg, 1901, 8 vo., 127 pp. ,paper), is a report "to the subscribers to the fund for investigating the subject of municipal improvement." The report of the treasurer of the fund shows that something over $5,000 was paid in by subscribers. This fund was put at the disposal of an executive committee of seven members, which was authorized to invite the co-operation of the city officials and employ experts to assist in their investigations. Mr. James H. Fuertes of New York City was employed to take up the subject of the improvement of the water system and sewerage, Mr. Warren H. Manning of Boston to work out plans for a park system, and Mr. M. R. Sherrerd of Newark, N. J., to make recommendations for street improvements, with particular reference to paving.

The reports of these experts are published in full in this volume. The importance of this document for the people of other cities is much greater than at first appears. It is an illustration—and such illustrations are rare in American cities—of the reasonable and scientific method of attacking municipal problems. The employment of expert engineers from outside reminds us of the German practice of advertising for burgomasters and heads of city departments. Harrisburg is a growing city of 50,000 inhabitants, and the capital of the second State in the Union. If the great American cities had tackled their problems in the same spirit when they were no more populous than Harrisburg is now, Mr. Bryce's chapters on municipal government would, perhaps, have been less interesting. At any rate, we should not have heard so much of "the one conspicuous failure."

Municipal Sanitation in the United States. (By Charles V. Chapin, M. D., Providence, R. I., Snow & Farnham, 1901. 8 vo., 970 pp., cl. $5.00.) Dr. Chapin is the "superintendent of health of the city of Providence," and this bulky volume which he has prepared is mainly a compilation of facts in regard to local sanitary practice in the United States. In the author's preface he says: "The preparation of the present volume was primarily undertaken to meet the author's personal needs. An investigation along certain lines of public health work suggested the utility of a comprehensive study of public sanitary methods. As a consequence this volume was prepared, and it is hoped that the material here gathered will prove useful to other health officers, as it has to the author. It is not a treatise on the principles of sanitation, and, in fact, these principles are rarely referred to, but it is, rather, a compendium of sanitary practice." The several chapters deal with sanitary organization, registration of vital statistics, nuisances, plumbing, water, sewers, food, communicable diseases, refuse disposal, and miscellaneous sanitary work. The book is a storehouse of information on the subjects with which it deals.

The *Springfield Republican* has recently reprinted in pamphlet form a series of sixteen articles, under the title, *Let Us Make a Beautiful City of Springfield, Mass.* (Springfield, the Republican Co., 1901. 8 vo., 65 pp., paper, 10c.) It is fortunate for Springfield that it has a newspaper with some idea of its civic function. "The *Republican* admits no limitations in its devotion to the interests of the commonwealth. No political, financial or personal relations interfere with its independent action as a public servant." With such an ideal of public duty, it is fitting that this newspaper should take up the problem of the decoration and æsthetic development of its home city. Springfield has peculiarly good municipal traditions, and under capable leadership the city will undoubtedly awake to its artistic opportunities and make itself one of the most beautiful cities of America.

BIBLIOGRAPHY.

The following subject index is intended to continue the work begun in the first number of MUNICIPAL AFFAIRS. The March, 1901, issue was entirely devoted to "A Bibliography of Municipal Problems and City Conditions," which contained all of the indices previously published, revised, re-arranged and made complete to September 1, 1901. So far as possible, all books, pamphlets, reports and magazine articles of interest to students of city government which have appeared in the last three months—September to December—are included in the following list. Future numbers will contain similar indices for each preceding quarter.

In the arrangement of the references, the following plan has been adopted: All relating to any one city have been grouped under that city. Thus references on Sewage Disposal in Berlin are found under **Berlin**, subhead Sewage Disposal. The same is true as to countries. The references to Water Supplies in the United States, for instance, are under **United States**, subhead Water Works. In each case, cross references to the city and country have been placed under the main topic. Thus, for example, immediately following the head **Lighting** there is a list of the cities and countries under which is found additional material on lighting, but which is not general in character, relating only to the city or country referred to.

Upon classifying the material according to this plan, a small number of unclassifiable titles are found which resist every device of the bibliographer's art, titles referring neither to any particular city, nor country, nor single topic. These, together with the important general works, have been given special prominence by being grouped at the beginning of the Index under the rubric **City Government, General and Unclassified.** A similar plan has been followed in each country and city.

City Government, General Works and Unclassified.

"A Model City: A Suggestion for the Louisiana Purchase Exposition." Crandall, William S. Mun. Aff. 5:670 (Sept., 1901).

Cities and their Future. "Les Villes et leur Avenir." Waurin, Louis. Bib. Univ. 24:5,298 (Oct., Nov., 1901).

"City Government and the People." Cutting, Robert Fulton. Mun. Aff. 5:881 (Dec., 1901).

"Experts to Rule Cities." Ely, Richard T. Pub. Policy 5:348 (Nov. 30, 1901).

"Municipal Administration." Fairlie, John A. New York, Macmillan Co., 1901. 8vo, 448 pp. Cl. $3.

"The Coming City." Commons, John R. Complete Educa. Vol. 2, No. 5, p. 8 (Oct., 1901).

Advertising.

See Paris.

"The Revival of Tradesmen's Signs.—II." Am. Arch. 65:28 (July 22, 1899).

"**Albany, N. Y.**, Typhoid Fever Results from Filtered Water, Compared with the Previously Unfiltered, at." Bailey, George I. Sanitarium 47:410 (Nov., 1901).

"**Albion, N. Y.**, Some Lessons from the Macadam Pavements of." Gillette, Halbert Powers. Engng. N. 46:205 (Sept. 19, 1901).

Amsterdam.

Waterways in Amsterdam. "Mededeelingen aangaande de in Uitvoering zijnde Werken voor de Geneetelijke Waterleidingen binnen Amsterdam." Pennink, J. M. K. De Ingenieur Sept. 28, 1901.

Art, Public.

See Chicago, Washington.

"Beautifying of Cities." Caffin, Charles H. World's Work 3:1429 (Nov., 1901).

"Public Art—The Test of Greatness." Adams, Brooks. Mun. Aff. 5:810 (Dec., 1901).

"Triumphal Arches for American Cities." de Kay, Charles. Mun. J. & E. 11:143 (Oct., 1901).

Austria.

Building Ordinances. "Die Bauordnung." Simony, Leopold. Sch. Ver. Socialpolitik 95:249 (1901).

Housing. "Neue Untersuchungen über die Wohnungsfrage in Deutschland und im Auslande: Deutschland und Oesterreich." Sch. Ver. Socialpolitik Vols. 94, 95, 96; 384, 364, 302 pp. (1901).

——. Finance. "Beschaffung der Geldmittel für die gemeinnützige Bauthätigkeit." Brandts, ——. Sch. Ver. Socialpolitik 96:87 (1901).

——. Inspection of Existing Houses. "Die Beaufsichtigung der Vorhandenen Wohnungen." Reincke, J. J., Zweigert, ——. Sch. Ver. Socialpolitik 95:3 (1901).

——. Law of Rent. "Das Mietrecht in Oesterreich." Pfersche, Emil. Sch. Ver. Socialpolitik 95:321 (1901).

——. Municipal Housing. "Förderung der gemeinnützigen Bauthätigkeit durch die Gemeinden." Reck, ——. Sch. Ver. Socialpolitik 96:179 (1901).

——. Small Houses. "Bau von kleinen Wohnungen." Albrecht, H. Sch. Ver. Socialpolitik 96:49 (1901).

"**Ayr, Scotland,** The Electric Tramways of." Ty. & Ry. W. 10:547 (Oct. 17, 1901).

Baltimore.

"A Modern Municipal Conduit." Phelps, Charles E. Mun. J. & E. 11:253 (Dec., 1901).

Baths, Laundries and Lavatories, Public. (See also **Public Comfort Stations.**)

See Boston, Chester (Eng.), London.

Belfast.

"Sewage Purification proposed for Belfast, Scheme of." Letts, E. A. San. Rec. 28:292, 314, 374, 422, 448 (Oct. 3, 10, 31, Nov. 14, 21, 1901).

"Water Supply, Belfast." Eng. (L.) 92:410 (Oct. 18, 1901).

Belgium.

Housing. "Die Wohnungsfrage in Belgien." ver Hees, Emil. Sch. Ver. Socialpolitik 97:185 (1901).

"Licensed Gambling in Belgium." Babbitt, George E. Forum 32:481 (Dec., 1901).

Berlin.

Housing and Land Questions in Greater Berlin. Grenzboten Sept. 5, 19, 1901.

——. "Die Bodenbesitzverhältnisse, das Bau- und Wohnungswesen in Berlin und seinen Vororten." Voigt, Andreas. Sch. Ver. Socialpolitik 94:149 (1901).

"**Birkenhead [Eng.]** Corporation. Electric Tramways." Ty. & Ry. W. 10:457 (Sept. 12, 1901).

"**Birmingham,** The Story of the Gas Industry in." J. G. L. 78:335 (Oct. 1, 1901).

Boston.

"The Population and Finances of Boston: A Study of Municipal Growth." Fay, Frederic H. Boston, Municipal Printing Office, 1901. 4to, 33 pp.

"The Puritan City." Hart, Thomas N. National M. 15:157 (Nov., 1901).

"Baths, Boston's Experience with Municipal." Stewart, Jane A. Am. J. Sociol. 7:416 (Nov., 1901).

Conduits. "The Subaqueous Tunnel Siphons of the Massachusetts Pipe Line Gas Co., Boston, Mass." Cummings, W. W. Engng. N. 46:227 (Oct. 3, 1901).

"Garbage Reduction Plant at Boston, Mass." Engng. Rec. 44:251 (Sept. 14, 1901).

"Rapid Transit Situation in Boston." Bell, Louis. Elec. R. 39:369 (Sept. 28, 1901).

"School Board Situation, The Boston." Moors, John T. World R. 2:15 (Sept. 7, 1901).

"Sewage Disposal Plant, Boston's." Dom. Engng. Oct. 15, 1901.

"Water-Works, The Work of Sanitary Inspection on the Metropolitan." Locke, William W. Engng. Rec. 44:295 (Sept. 28, 1901), J. N. E. W. W. A. 15:483 (Dec., 1901).

"**Bournemouth [Eng.]**, Municipal Tramways at." Mun. J. 10:779 (Oct. 11, 1901).

"**Bradford's [Eng.]** New Cold Stores." Mun. J. 10:775 (Oct. 11, 1901).

Bridges.

See London, New York.

"Bridges, Architectural Treatment of." Engng. Rec. 44:426 (Nov. 2, 1901).

Bristol, Eng.

"Pensions, Municipal." Mun. J. 10:860 (Nov. 8, 1901).

"Telephones, Municipal." Mun. J. 10:869 (Nov. 8, 1901).

Brooklyn, N. Y. (See **New York.**)

Brussels.

Telephones. "Die neue Fernsprech-Vermittelungsanstalt in Brussel." Elek. Zeit. 22: 751 (Sept. 12, 1901).

Buffalo.

"The Water-Works System of the Pan-American City." Sci. Am. Sup. Oct. 5, 1901.

Building Laws and Regulations.

See Austria, Germany.

"Fire-Proofing Methods for Buildings." Howard, J. W. Mun. J. & E. 11:150, 282 (Oct., Dec., 1901).

California.

"Municipal Ownership in California, Utilities under." Cal. Mun. 5:69, 102 (Oct., Nov., 1901).

Canada.

"City Government in Canada." Wickett, S. Morley. Canadian M. 18:51 (Nov., 1901).

——. "Canadian Municipalities." Arbuthnot, John. Mun. J. & E. 11:161 (Oct., 1901).

"Street Railways in Canada, Development of." Ross, W. G. Canadian M. 18:276 (Jan., 1902).

Charities.

See New York, United States, York.

"Churches in Charity, Co-operation of." Almy, Frederick. Char. 7:204 (Sept. 7, 1901).

"Co-operation, Some Methods of Charitable." Richmond, Mary E. Char. 7:196 (Sept. 7, 1901).

"Duty of the Citizen in Relation to Public Charities." Cleveland, Grover. Char. 7:201 (Sept. 7, 1901).

"Human Waste of a Great City." Hawley, Walter L. Gunton's 21:414 (Nov., 1901).

"Subsidizing of Private Charities." Fetter, Frank A. Am. J. Sociol. 7:359 (Nov., 1901).

"Summer Philanthropy." Char. 7:279 (Oct. 5, 1901).

"**Cheltenham [Eng.]**: The Garden Town." Mun. J. 10:675 (Sept. 6, 1901).

"**Chemnitz, Germany,** The Ground Water Supply of." Engng. Rec. 44:223 (Sept. 7, 1901).

"**Chester [Eng.]** Public Baths." Mun. J. 10:855 (Nov. 8, 1901).

Chicago.

"Chicago's Book of Days." Fuller, Henry B. Outlook 69:288 (Oct. 5, 1901).

"Civic Betterment in Chicago." Commons 6:1 (Nov., 1901).

Art. "Decorative Planting Contests in Chicago." Park & Cem. 11:160 (Nov., 1901).

Franchises, Taxation of. "A Tax Reform Victory." Outlook 69:527 (Nov. 2, 1901).

"Paving in Chicago, The Evolution of Street." Gross, Howard H. Mun. J. & E. 11:206 (Nov., 1901).

Sanitation. "The Fight for Life in Chicago: A Sketch of the Sanitary History of the City." Thurston, Henry W. Chicago Board of Education, 1901. 12mo, 52 pp. Paper.

Street Cleaning. "Plans for Cleaner Public Ways." Foreman, Milton J. Pub. Policy 5:298 (Nov. 9, 1901).

"Street Railway Problem, The Chicago." Smith, Edwin Burritt. World R. 2:181 (Oct. 19, 1901).

"Water-Works System of Chicago." Fire & W. 29:327 (Sept. 14, 1901).

Church and Municipal Conditions. (See under **Charities.**)

Civil Service of Cities.

"Merit Systems a Basis for Good Government, Uniform Accounting and." Pub. Policy 5:195 (Sept. 28, 1901.

Cleveland, O.

"Smoke Problem, The Solution of Cleveland's." Fawcett, Walden. Mun. J. & E. 11:211 (Nov., 1901), Cal. Mun. 5:112 (Nov., 1901).

Colorado.

"Woman's Suffrage and Municipal Politics." Le Rossignol, J. E. Ann. Pol. Sci. 18:552 (Nov., 1901).

Columbus, O.

Transportation. "The Columbus Attempt to secure Three-cent Fares." Bemis, Edward W. Ann. Pol. Sci. 18:479 (Nov., 1901), Mun. Aff. 5:905 (Dec., 1901).

Conduits.

See Baltimore, Boston.

"Concrete Subways for Underground Pipes." Allen, Arthur. Prog. Age 19:386 (Sept. 16, 1901).

"Subaqueous Tunnels for Gas Conduits." Cummings, W. W. Prog. Age 19:358, 382 (Sept. 2, 16, 1901).

Croydon, Eng.

"Electric Light and Traction at Croydon." Elec. R. (L.) Oct. 4, 1901.

"Tramways, Croydon Corporation Electric." Elec. Oct. 4, 1901.

——. "Croydon Electric Trams." Mun. J. 10:759 (Oct. 4, 1901).

Day Labor and Contract System.

See London.

Denmark.

Housing. "Die Wohnungsfrage in Dänemark." Albrecht, H. Sch. Ver. Socialpolitik 97:305 (1901).

Detroit, Mich.

"Engineer in Municipal Service, The Position of the." Dow, Alexander. J. Engng. Soc. 27:99 (Sept., 1901).

Duluth, Minn. "Telephone System." Joerns, W. G. Ann. Pol. Sci. 18:549 (Nov., 1901).

Elections.

See Minneapolis, Minnesota, New York, Philadelphia.

Electrolysis.

See United States.

"Destruction of Gas-Pipes by Means of Electricity." Leybold, W. J. G. L. 78:630 (Sept. 10, 1901), Prog. Age 19:408 (Oct. 1, 1901), Ty. & Ry. W. 10:592 (Oct. 17, 1901).

"Electrolysis of Water and Gas Pipes, resulting from Electrical Currents escaping from Street Railways." Mathews, Edwin P. Fire & W. 30:364 (Oct. 12, 1901).

Employment Bureaus, Municipal; Employment of Laborers by the Municipality. (See under **Labor and its Relation to the Municipality**).

Engineering, Municipal.

"Engineering as applied to Municipal Work." Surveyor 20:634 (Nov. 29, 1901).

"Engineering Progress during the last Century." Hawksley, Charles. Surveyor 20:578 (Nov. 15, 1901).

Excise. (See **Liquor Problem in Cities.**)

Finance.

See Boston, New York, United States.

"Municipal Finances." Fairlie, John A. Pp. 317-374 in his "Municipal Administration." New York, Macmillan Co., 1901. 8vo, 448 pp. Cl. $3.

"Accounting from an Accountant's Point of View, Municipal." Engng. Rec. 44:289 (Sept. 28, 1901).

——. "Practical Application of Uniform Accounting to City Comptroller's Reports." Chase, Harvey S. Pub. Policy 5:205 (Sept. 28, 1901), Mun. J. & E. 11:218 (Nov., 1901).

——. "Uniform Accounting and Merit Systems a Basis for Good Government." Pub. Policy 5:195 (Sept. 28, 1901).

"Taxation and Equalization of City, Town and Country Real Estate." Duvall, L. C. L. Dallas, Texas, W. W. Warlick, Jr., 1901. 8vo, 85 pp. Paper, 50 cents.

——. "Franchises, Taxes on Street Railway." Allen, Walter S. Forum 32:355 (Nov., 1901).

——. "Local Option in Taxation." Purdy, Lawson. Mun. J. & E. 11:157 (Oct., 1901), Pub. Policy 5:302 (Nov. 9, 1901).

——. "Public Accounting as related to Taxation." Foote, Allen Ripley. Pub. Policy 5:238 (Oct. 12, 1901).

——. "Utilitarian Principles of Taxation and their Relation to Altruism." Guernsey, R. S. Sanitarian 47:289 (Oct., 1901).

France.

Housing. "Die Wohnungsfrage in Frankreich." Albrecht, H. Sch. Ver. Socialpolitik 97:163 (1901).

Franchises, Municipal. (See under **Municipal Control, Municipal Ownership** and **Finance.**)

"**Freiburg, I. B.,** Beitrag zur Geschichte des Stadtwaldes von." Gerber, A. Tübingen, J. C. B. Mohr, 1901. 8vo, 130 pp.

Gambling.

See Belgium.

Garbage Disposal. (See also **Sewage Disposal.**)

See Boston, Grand Rapids, Minneapolis, United Kingdom, United States, Washington.

Cremation. "Destruction of Town Refuse by Fire." J. G. L. 78:834 (Oct. 1, 1901).

"Scavenging—Refuse Disposal and Smoke Abatement." Hunter, W. L. San. Rec. 28:263, 295, 315, 334 (Sept. 26, Oct. 3, 10, 17, 1901).

"Steam Production, The Town Refuse Problem and its Relation to." Maxwell, William H. Feilden's M. Sept., 1901.

——. "Refuse Destructors in Combination with Electric Power Stations." Highfield, J. S. Engng. Rec. 44:397 (Oct. 26, 1901).

"Utilization of Waste." Austen, Peter T. Forum 32:74 (Sept., 1901).

Germany.

Building Laws. "Die Bauordnung." Schilling, B.; Stübben, J. Sch. Ver. Socialpolitik 95:187 (1901).

Electric Plants in Germany, Statistics of. "Statistik der Elektrizitätswerk in Deutschland." (Published yearly.) Elek. Zeit. 22:720 (Sept. 5, 1901).

Housing. "Neue Untersuchungen über die Wohnungsfrage in Deutschland und im Auslande: Deutschland und Oesterreich." Sch. Ver. Socialpolitik Vols. 94, 95, 96; 384, 364, 302 pp. (1901).

——. Finance. "Beschaffung der Geldmittel für die gemeinnützige Bauthätigkeit." Brandts, ——. Sch. Ver. Socialpolitik 96:87 (1901).

——. Increase of Building Costs and Rents. "Der Einfluss der Baukosten auf die Mietpreise." Voigt, Andreas. Sch. Ver. Socialpolitik 95:337 (1901).

——. Inspection. "Die Beaufsichtigung der vorhendenen Wohnungen." Reincke, J. J.; Zweigert, ——. Sch. Ver. Socialpolitik 95:3 (1901).

——. Land Rights. "Das Mietrecht in Deutschland." Flesch, ——; Zirndorfer, ——. Sch. Ver. Socialpolitik 95:275 (1901).

——. Municipal Housing. "Förderung der gemeinnützigen Bauthätigkeit durch die Gemeinden." Beck, ——. Sch. Ver. Socialpolitik 96:179 (1901).

——. Private Activity. "Förderung des Baues kleiner Wohnungen durch die private Thätigkeit auf streng wirtschaftlicher Grundlage." Adickes, ——. Sch. Ver. Socialpolitik 96:272 (1901).

——. Small Houses. "Bau von kleinen Wohnungen." Albrecht, H. Sch. Ver. Socialpolitik 96:1 (1901).

——. Statistics. "Wohnungsstatistik." Lindemann, H. Sch. Ver. Socialpolitik 94:261 (1901.)

——. The Housing Programme of German Social Democracy. "Zum Wohnungsprogramm der deutschen Socialdemokratie." Kampffmeyer, Paul. Socialistische Monatshefte 6:704 (Sept., 1901).

——. Transportation. "Der Stadterweiterungen und seine Durchführung." Stübben, J. Sch. Ver. Socialpolitik 95:113 (1901).

Glasgow.

"Suggestions for the Board of Aldermen from the Wisdom of Glasgow." Parsons, Frank. Civic Councillor No. 35, p. 1 (Nov. 16, 1901.)

"Harbor of Glasgow, The River Clyde and." Alston, W. M. Ir. & Coal T. R. Sept. 6, 1901.

"Housing, A Municipal Family Home." Mun. J. 10:689 (Sept. 6, 1901).

——. "Company Housing in Glasgow." Mun. J. 10:817 (Oct. 25, 1901).

——. "Farmed-Out Houses: Should the Corporation Provide them?" Fyfe, Peter, San. Rec. 28:376 (Oct. 31, 1901).

"Tramways of Greenock, Port Glasgow and Gourock." Ty. & Ry. W. 10:614 (Nov. 14, 1901).

"**Grand Rapids** Disposes of its Garbage, How." DeLano, William. Mun. J. & E. 11:148 (Oct., 1901).

Growth of Cities. (See under **Population.**)

"**Guantanamo, Cuba,** The Water-Works of." Rockenbach, S. D. Pro. Am. Soc. Civ. Eng. 27:807 (Sept., 1901).

Hamburg.

Housing. "Die Verhältnisse kleiner Wohnungen in Alt-Hamburg." Pfingsthorn, Carl. J. Gesetz. Ver. u. Volks. 25:1307 (Heft 4, 1901).

Harbor Facilities.

See Glasgow.

"**Harrisburg, Pa.,** Proposed Municipal Improvements for." Fuertes, James H.; Manning, Warren H.; Sherrerd, M. R. Harrisburg, The Executive Committee, 1901. 8vo, 127 pp. Free.

"**Havana,** Urban Transportation in." Greenwood, G. T. St. Ry. R. 11:755 (Oct. 15, 1901).

"**History, Municipal.**" Fairlie, John A. Pp. 3-124 In his "Municipal Administration." New York, Macmillan Co., 1901. 8vo, 488 pp. Cl. $3.

Holland.

Housing. "The Dutch Dwelling Houses Act." Pierson, N. G. Econ. J. 11:511 (Dec. 1901).

Home Rule.

See Pennsylvania, United States.

Housing of the Working Classes.

See Austria, Belgium, Berlin, Denmark, France, Germany, Glasgow, Hamburg, Holland, London, New York, Oxford (Eng.), Norway, Russia, Sweden, Switzerland, United Kingdom, Vienna, York.

"Housing of the Poor." McNutt, G. L. Ind. 53:2341 (Oct. 3, 1901).

——. "Neue Untersuchungen über die Wohnungsfrage in Deutschland und Auslande; Oesterreich, Schweiz, England, Frankreich, Belgien, Vereinigte Staaten, Russland, Norwegen, Schweden, Dänemark." Sch. Ver. Socialpolitik. Vol. 94, 95, 96, 97; 384, 364, 302, 327 pp. 1901).

——. "The Housing Problem at the British Association." San. Rec. 28:273 (Sept. 26, 1901).

"Hotel Movement, The Philosophy of the Workmen's." Leigh, John Garrett. Econ. R. 11:434 (Oct. 15, 1901).

"Overcrowding and the Remedies for it." Winnington-Ingram, Arthur Foley. Cosmopol. 32:85 (Nov. 1901).

"Suburban Districts, The Problem of the Housing of the Laboring Classes, with Special Reference to." Campbell, A. H. Surveyor Sup. Nov. 29, 1901.

Huddersfield, Eng.

"Municipal Purity." Mun. J. 10:861 (Nov.8, 1901).

"Sewage Purification at Huddersfield by Bacterial and Other Methods, Researches into the System of." Campbell, K. F. Surveyor Supplement Sept. 6, 1901.

"**Italy,** Electrical Tramways and Rilways in." Effren, Magrini. Ty. & Ry. W. 10:622 (Nov 14, 1901).

"**Ithaca,** The Cost and Durability of Brick Pavements in." Crandall, C. L. Engng. Rec. 44:224 (Sept. 7, 1901), Mun. Engng. 21:233 (Oct., 1901).

Karlsruhe Electric Plant. "Das Elektricitätswerk der Stadt Karlsruhe." Elek. Zeit. 22:847 (Oct. 10, 1901).

"**Lawrence, Mass.,** City Filter: A History of its Installation and Maintenance." Pro. Am. Soc. Civ. Eng. 27:837 (Sept., 1901).

"**Leeds,** City of Electric Tramways" Ty. & Ry. W. 10:529 (Oct. 17, 1901).

"**Leicester, England,** Sewer Ventilation Experiments at." Engng. Rec. 44:339 (Oct. 12, 1901).

Libraries, Public.

See New York.

"What may be done for Libraries by the City." Montgomery, T. L. Library J. (Lond.) Aug., 1901.

Lighting. (See also **Municipal Control.**)

See Birmingham, Croydon, Germany, Karlsruhe (Ger.), London, Massachusetts, Norwich (Eng.), Paris, Rhyl (Eng.), Toledo, United Kingdom, Vienna, Walthamstow, Zurich.

"Gas versus Electricity." Adams, Alton D. Elec. W. & E. 38:676 (Oct. 26, 1901).

Electricity. "Accounting, Modern Electric Light." Knight, A. S. Elec. W. & E. 38:726 (Nov. 2, 1901).

——. "Accounting for Electric Light Companies, Standard System of." Tripp, G. E. St. Ry. J. 18:643 (Oct. 26, 1901).

——. "Electrical Incomes and Outputs per Ton of Coal." Adams, Alton D. Elec. W. & E. 38:814 (Nov. 16, 1901).

——. "Some Notes on Electric Light and Power Distribution." Mead, Daniel W. Mun. Engng. 21:207 (Oct. 1901).

Gas. "Auditing Gas Works Accounts." J. G. L. 78:969, 1091 (Oct. 15, 22, 1901).

——. "Accounts, Uniform System of." Prog. Age 19:365 (Sept. 2, 1901).

——. "Coke Ovens, The Production of Illuminating Gas from." Schniewind, F. J. G. L. 78:691 (Sept. 17, 1901), Prog. Age 19:422 (Oct. 15, 1901).

——. "Differential Rates for Gas." von Oechelhäuser, W. J. G. L. 78:209 (July 25, 1901), Prog. Age 19:361 (Sept. 2, 1901).

——. "Distributing Gas, Modern Methods of." Humphrys, Norton H. J. G. L. 78:391 (Aug. 13, 1901).

——. "Purification; Application of the Unit System of Gas Manufacture to its." Carpenter, Charles. J. G. L. 78:637 (Sept. 10, 1901).

——. "Residuals, The Fuel Value of." Prichard, Charles F. Am. G. L. J. 75:867 (Nov. 18, 1901).

——. "Retort Ovens as Producers of Illuminating Gas." Littlehales, T. Am. G. L. J. 75:767 (Nov. 11, 1901).

——. "Tar and Water from Water Gas." McKay, W. E. Am. G. L. J. 75:724 (Nov. 4, 1901), Prog. Age 19:475 (Nov. 15, 1901).

——. Water Gas. "Le Gaz a l'Eau Carburé." Laverchère, J. Génie Civil. Oct. 12, 1901.

——. "Water-Gas in the Destructive Distillation of Coal, The Utilisation of." Lewes, Vivian B. J. G. L. 78:623 (Sept. 10, 1901), Prog. Age 19:378 (Sept. 16, 1901), Am. G. L. J. 75:603 (Oct. 14, 1901).

——. "What is the Business of a Gas Company?" Moses, Frank D. Prog. Age 19:472 (Nov. 15, 1901).

Liquor Problem in Cities.

See New York.

"Local Option in Cities" (Editorial.) Outlook 69:762 (Nov. 23, 1901).

——. "The Principle of Local Option." (Editorial.) Ind. 53:3032 (Dec. 19, 1901).

"Public House Trusts" Mun. J. 10:718 (Sept. 20, 1901).

"Social Function of the Saloon." Adler Felix. Mun. Aff. 5:876 (Dec. 1901).

Lodging Houses. (See under **Housing.**)

London.

"Enterprise at West Ham." Mun. J. 10:857 (Nov. 8, 1901).

"Work at the County Council." Mun J. 10:781; 829, 889, 902, 929 (Oct. 11, 25, Nov. 15, 22, 29, 1901).

"Baths for St. Pancras, New." Mun. J. 10:755 (Oct. 4, 1901).

"Bridge, The Widening of London." Mun. J. 10:680 (Sept. 6, 1901).

Direct Employment. "A Municipal Works Department." Mun. J. 10:819 (Oct. 25, 1901).

"Drainage, London Main." Binnie, Alexander. Surveyor 20:276 (Sept. 6, 1901).

——. "Ilford Main Drainage." Hetherington, Roger Gaskell. Surveyor 20:552 (Nov. 8, 1901).

——. "The New Drainage By-Laws of the London County Council." Builder Sept. 28, 1901.

"Electric Light for Camberwell." Mun. J. 10:891 (Nov. 15, 1901).

——. "Electric Light and Tramways Undertakings, East Ham." Surveyor 20:423 (Oct. 11, 1901).

"Housing Reformers, A Score for." Mun. J. 10:809 (Oct. 18, 1901).

Sanitation. "Die Sanierungsarbeiten des Londoner Grafschaftsrates." Sch. Ver. Socialpolitik 97:313 (1901).

"Schools for Cripple Children." Mun. J. 10:695 (Sept. 13, 1901).

——. "A Municipal Bakery School." Mun. J. 10:697 (Sept. 13, 1901).

"Sewage, London." Clowes, Frank. San. Rec. 28:201 (Sept. 5, 1901).

"Smokeless London, A." Cookson, C. A. Mun. J. 10:722 (Sept. 20, 1901).

Streets. "The Strand Scheme." Mun. J. 10:701 (Sept. 13, 1901).

"Telephones Fiasco, London." Mun. J. 10:909 (Nov. 22, 1901).

Transportation. "London's Traffic Problem." (Editorial.) Mun. J. 10:864 (Nov. 8, 1901).

——. "Rapid Transit Problem in London." Sprague, Frank J. Engng. M. 22:3 (Oct. 1901).

——. "Tramways of the London County Council." Ty. & Ry. W. 10:475, 494, 641 (Sept. 12, Nov. 14, 1901).

——. Underground Railways. Mun. J. 10:795, 856 (Oct. 18, Nov. 8, 1901), Ty. & Ry. W. 10:651 (Nov. 14, 1901), Sci. Am. 85:345 (Nov. 30, 1901).

Winchester. "King Alfred's City. Winchester and its Municipal History." Mun. J. 10:715 (Sept. 20, 1901).

"**Lowell [Mass.]** and its Solution of the Paving Problem." Somers, Walter J. Mun. J. & E. 11:268 (Dec., 1901).

"**Madison, Wis.,** The New Sewage Disposal Plant at." Turneaure, F. E. Engng. N. 46:286 (Oct. 17, 1901), Engng. Rec. 44:372 (Oct. 19, 1901), Mun. Engng. 21:302 (Nov., 1901).

"**Manchester [Eng.]**, New Sewage Screening Apparatus at." Engng. Rec. 44:477 (Nov. 16, 1901).

Massachusetts.

Lighting. "Operation of Electric Plants by Massachusetts Towns." Adams, Alton D. Yale R. 10:320 Nov. 1901).

Street Lighting. "Prices of Electric Street Lighting in Massachusetts." Adams, Alton D. Mun. Engng. 21:387 (Dec. 1901).

Mayor, The.

See New York

"**Menomonie, Wisconsin,** The Improvement of School Grounds." Park & Cem. 11:149 (Oct. 1901).

"**Myrthyr Tydvil [Wales]** New Water-Works." Eng. (L.) Sept. 6. 1901.

Milk Supply.

See New York.

Minneapolis.

Elections. "Minneapolis Plan for Direct Primaries." Hodder, William Charles. Mun. Aff. 5:802 (Dec. 1901).

"Garbage Crematory at Minneapolis, The Decarie." Engng. Rec. 44:318 (Oct. 5. 1901).

Minnesota.

"Election Law, State Primary." Anderson, Frank Maloy. Ann. Pol. Sci 18:550 (Nov. 1901).

——. "The Minnesota Primary Election Law." Pub. Policy 5:318 (Nov. 16, 1901).

Municipal Control, Ownership.

See Austria, Bradford (Eng.), Bristol (Eng.), Brussels, California, Chicago, Freiburg (Ger.), London, New York, Norwich (Eng.), United Kingdom, United States.

"Accounting, Importance of Public." Bemis, Edward W. Pub. Policy 5:266 (Oct. 26, 1901).

——. "A Solution for Public Service Problems—Uniform Accounting." Foote, Allen Ripley. Pub. Policy 5:332 (Nov. 23, 1901).

"Activities, Municipal." Fairlie, John A. Pp. 125-316 in his "Municipal Administration." New York, Macmillan Co., 1901 8vo, 448 pp. Cl. $3.

"Capital Accounts from the Viewpoint of Investors and the Public." Williams, T. S. St. Ry. R. 11:677 (Oct. 10, 1901), St. Ry. J. 18:549 (Oct. 12, 1901).

"Control vs. Ownership, Municipal." Schurig, E. F. Mun. J. & E. 11:180 (Oct. 1901).

"Europe, Municipal Ownership of Public Service Industries in." Johnson, J. A. Cal. Mun. 5:76 (Oct. 1901).

"Franchises." Cooper, H. S. St. Ry. R. 11:570 (Sept. 15, 1901).

Landownership in Cities. "Städtischer Grundbesitz." Merkur, ——. Gesellschaft 17:73 (Oct. 15, 1901).

Lighting. "Eclairage Public (Considérations Générales à l'Occasion des Propositions faites à la Commune de Schaerbeek.)" L'Avenir Social 6:687 (Dec. 1901).

Municipal Ownership, General Articles on. Allen, Walter S. Prog. Age 19:384 (Sept. 16, 1901); Commons, John R. Ind. 53:2633 (Nov. 7, 1901); French, George. Worcester M. 2:89 (Sept. 1901); Jenkins, E. H. Pub. Policy 5:317 (Nov. 8. 1901); Meriwether, Lee. Mun. J. & E. 11:164 (Oct. 1901); Watkins, Albert. Forum 32:201 (Oct. 1901).

"Public Service Corporations." Serrell, Lemuel William. New York, Author. 1901. 12mo, 48 pp.

Street Railways. "The Public, the Operator and the Company." Sergeant. C. S. St. Ry. J. 18:539 (Oct. 12, 1901).

"Taxation, A Problem of Public Policy Concerning Franchise Values." Sikes, George C. Pub. Policy 5:252 (Oct. 19, 1901).

Monopolies, Municipal. (See under **Municipal Control, Municipal Ownership.**)

"**Naples'** Tammany Overthrown." Mun. Aff. 5:917 (Dec. 1901).

"**New Orleans** Water Situation." (Editorial.) Engng. Rec. 44:465 (Nov. 16, 1901.)

New York.

"General Ordinances of the City of New York under the Greater New York Charter." Brown, George Whitfield, Jr. New York, Banks Law Publishing Co., 1901. 12mo, 286 pp. Leather $2.50.

"The Rebuilding of New York." Cunniff, M. G.; Goodrich, Arthur. World's Work 3:1485 (Dec. 1901).

"The Unification of New York." Dawley, Thomas R., Jr. Outlook 69:273 (Oct. 5, 1901).

"Brooklyn Bridge, The Physical Condition and Safety under Present Loads of the New York and." Duryea, Edwin, Jr.; Mayer, Joseph. Engng. N. 46:250 (Oct. 10, 1901), Engng. Rec. 44:350, 376 (Oct. 12, 19, 1901).

——. "An Expert Report on the Improvement of the Brooklyn Bridge Terminals." Clarke, Thomas C.; Boller, Alfred P.; Prout, Henry G. Engng. N. 46:291 (Oct. 17, 1901).

——. Brooklyn Bridge Terminal Report. R. R. Gaz. 33:718 (Oct. 18, 1901); St. Ry. J. 18:645 (Oct. 26, 1901); St. Ry. R. 11:824 (Nov. 15, 1901).

Charities. "Dependent Children in New York City." Char. 7:388 (Nov. 2, 1901).

——. "The Charity Organization Society of the City of New York." Char. 7:379 (Nov. 2, 1901).

——. "The Subsidy Problem in New York City." Coler, Bird S. Ind. 53:2161 (Sept. 12, 1901).

Charter. "Changes in the Management of Public Works, New York City." Lewis, Nelson P. Engng. Rec. 44:400 (Oct. 26, 1901).

Election of 1901, Mayorality. Cutting, R. Fulton. City & State 11:152 (Sept. 5, 1901); Denison, Lindsay. World's Work 3:1555 (Dec. 1901); Goodrich, Arthur. World's Work 2:1314 (Oct. 1901); Maltbie, Milo Roy. Am. R. of Rs. 24:551 (Nov. 1901); Anon. City & State 11:229, 279 (Oct. 10, 31, 1901); Gunton's 21:400 (Nov. 1901); Hrprs. Wkly. 45:1046 (Oct. 19, 1901); Nation 73:258, 274 (Oct. 3, 10, 1901); Outlook 69:350, 674 (Oct. 12, Nov. 16, 1901); World R. 2:290 (Nov. 16, 1901).

——. "Election Night in New York." Mumford, John Kimberley. Hrprs. Wkly. 45:1142 (Nov. 16, 1901).

——. "Mayor Low's Opportunity." Hawley, Walter L. Ind. 53:2770 (Nov. 21, 1901).

——. "New Municipal Policy." (Editorial.) Gunton's 21:526 (Dec. 1901).

——. Tammany Hall. Brooks, Sydney. Monthly R. Nov. 1901; Flynt, Josiah. McClure's 17:543 (Oct. 1901); Hawley, Walter L. No. Am. 173:481 (Oct. 1901); Lang, L. J. Frank Leslie's Pop. Monthly Nov. 1901.

"Financial Problems of a Great City." Coler, Bird S. No. Am. 173:464 (Oct. 1901).

"Franchises, The Piracy of Public." Bowker, R. R. Atlan. 88:463 (Oct. 1901), Mun. Aff. 5:886 (Dec. 1901).

"History, New York Colonial." (Pp. 406-465 New York City and vicinity.) Flagg, Charles A.; Jennings, Judson T. Bulletin 56 New York State Library, Feb, 1901. 8vo. Paper, 35 cents.

"House Reform, Tenement: Its Practical Results in the 'Battle Row' District, New York." Cope, Francis R. Am. J. Sociol. 7:331 (Nov. 1901).

——. "Water Supply in a Block of New York Tenements." Engng. Rec. 44:431 (Nov. 2, 1901).

"Library, New York Public." Reid, Sydney. Ind. 53:2752 (Nov. 21, 1901).

"Mayor and the Revised New York City Charter." Rives, George L. No. Am. 173:454 (Oct. 1901).

"Milk Supply, New York." Chapin, Henry Dwight. Sanitarian 47:481 (Dec. 1901).

"Pavements in the Borough of Manhattan, New York, Asphalt." North, Edward P. Engng. Rec. 44:418 (Nov. 2, 1901).

"Saloon in New York, The Sunday." (Editorial.) World R. 2:319, (Nov. 23, 1901).

——. "Enforce the Law." Clement, M. N. Mun. Aff. 5:852 (Dec. 1901).

——. "Local Option by Popular Vote." Abbott, Lyman. Mun. Aff. 5:859 (Dec. 1901).

——. "'Raines Law Hotels': State-Promoted Vice." Warner, John DeWitt. Mun. Aff. 5:842 (Dec. 1901).

——. "Saloon Problem in New York." Agar, John G. Mun. Aff. 5:829 (Dec. 1901).

——. "Sunday Opening by Statute." Jerome, William Travers. Mun. Aff. 5:867 (Dec. 1901).

Transportation. "Brooklyn, Some Railway Problems of." Greatsinger, J. L. St. Ry. J. 18:458 (Oct. 1, 1901).

——. "Brooklyn, Track Construction in." Packe, E. H. St. Ry. R. 11:558 (Sept. 15, 1901).

——. "Brooklyn Rapid Transit System, Track Construction on the." Russell, R. L. St. Ry. R. 11:555 (Sept. 15, 1901).

——. "Brooklyn Rapid Transit Co., System of the." St. Ry. R. 11:548 (Sept. 15, 1901).

——. "Manhattan Railway Co., of New York." St. Ry. R. 11:545 (Sept. 15, 1901); Engng. Times, Sept., 1901.

——. Electric Traction. "Der neue elektrische Betrieb der new yorker Stadtbahn." Hruschka, Arthur. Elek. Zeit. 22:863, 883, 901 (Oct. 17, 24, 31, 1901).

——. Metropolitan Street Railway System. Pearson, Walter A. St. Ry. J. 18:414 (Oct., 1901); Starrett, M. G. St. Ry. J. 18:407 (Oct., 1901); Vreeland, H. H. St. Ry. J. 18:397 (Oct., 1901); Root, Oren, Jr. St. Ry. J. 18:402 (Oct., 1901); anon. St. Ry. R. 11:535 (Sept. 15, 1901).

——. Rapid Transit Subway. Prelini, Charles. Engng. 72:477 (Oct. 4, 1901); anon., Elec. R. (L.) Oct. 25, 1901; Sci. Am. 8:297 (Nov. 9, 1901), St. Ry. J. 18:425 (Oct., 1901); St. Ry. R. 11:540 (Sept. 15, 1901).

——. "Traffic Conditions of New York City." Ford, Frank R. St. Ry. J. 18:373 (Oct., 1901); anon. St. Ry. R. 11:531 (Sept. 15, 1901).

Norway. Housing. "Die Wohnungsfrage in Norwegen." Holst, Axel. Sch. Ver. Socialpolitik 97:285 (1901).

"**Norwich [Eng.]**, A Bargain at." (Lighting.) Mun. J. 10:912 (Nov. 22, 1901).

Oxford, Eng. "The Housing of a Provincial City." Carlyle, A. J. Econ. R. 11:460 (Oct., 1901).

Paris.

Advertising. Curious Paris Signs. "Curieuses Enseignes de Paris." Callet, A. Monde Moderne 14:484 (Oct., 1901).

Gas Lighting. "La Question du Gaz à Paris." J. Gaz l'Elec. 21:407, 421, 441, 461 (Nov. 15, 30; Dec. 15, 30, 1901).

Paving. "Die Strassenbefestigung insbesondere das Holzpflaster in Paris." Swetz, Alexander. Zeit. Ing.-Arch-Ver. (Oct. 11, 1901.)

Underground Railway. "Le Chemin de Fer Metropolitain de Paris." Dumas, A. Paris, Le Génie Civil 1901. 8vo, 183 pp. Cloth, $2.25.

Parks, Playgrounds.

See San Antonio (Texas).

"Green Girdles for Great Cities." Holmes, F. M. Quiver Dec., 1901.

"Municipal Athletics." Harrison, Carter H. Ind. 53:2823 (Nov. 28, 1901).

"Playground Education." Lee, Joseph. Educa. R. 22:449 (Dec., 1901).

"The Improvement of Small Public Grounds." Park & Cem. 11:151 (Oct., 1901).

Parties and Party Politics in Cities, Non-Partisanship. (See also **Elections**).

See Naples, New York, Philadelphia.

Paving.

See Albion (N. Y.), Chicago, Ithaca (N. Y.), Lowell, New York, Paris.

"Asphaltum and its Compounds in Nature." Howard, J. W. Mun. J. & E. 11:196 (Nov., 1901).

"Bituminous Pavements, Use of Coal Tar in." Warren, Fred J. Am. G. L. J. 75:450 (Sept. 16, 1901), Mun. J. & E. 11:204 (Nov., 1901), Mun. Engng. 21:285 (Nov., 1901).

"Brick Pavements and the Engineer." Gleaves, Taylor. Brick Sept., 1901.

——. "Commercial Brick Testing." Brick Sept., 1901.

——. "The Growing Popularity of Brick Pavements." Wheeler, H. A. Mun. J. & E. 11:207 (Nov., 1901).

"Design of Economic Streets and Pavements." Gillette, Halbert Powers. Engng. N. 46:165 (Sept. 5, 1901).

"Guarantees, Pavement." Tillson, George W. Engng. Rec. 44:345 (Oct. 12, 1901), Mun. Engng. 21:283 (Nov., 1901).

"Wooden Pavements at Home and Abroad." Kummer, Frederic Arnold. Engng. Rec. 44:404 (Oct. 26, 1901), Mun. J. & E. 11:254 (Dec., 1901).

——. "Recent Experiences with Wood Pavements." Wheeler, B. T. Engng. Rec. 44:324 (Oct. 5, 1901), Mun. Engng. 21:296 (Nov., 1901), Mun. J. & E. 11:200 (Nov., 1901).

Pennsylvania.

Corruption. "The Ills of Pennsylvania." Atlan. 88:558 (Oct., 1901).

Home Rule. "Constitutional Prohibition of Local and Special Legislation in Pennsylvania." White, Thomas Raeburn. Am. Law Reg. 40:623, 687 (Nov., Dec., 1901).

Pension Funds. (See also **Labor and its Relation to the Municipality** and **Schools**).

See Bristol (Eng.).

Philadelphia.

"Address of Mr. Geo. Burnham, Jr." City & State 11:247 (Oct. 17, 1901).

Elections. "The Philadelphia Campaign against 'Machine' Rule." Woodruff, Clinton Rogers. Am. R. of Rs. 24:558 (Nov., 1901).

Parties. "Philadelphia's Republican Tammany." Woodruff, Clinton Rogers. Outlook 69:169 (Sept. 21, 1901).

"Settlements in Philadelphia." Davies, Anna F. Commons 6:7 (Nov., 1901).

"**Philippine Islands,** Municipal Government in the." Plehn, Carl C. Mun. Aff. 5:793 (Dec., 1901).

"**Plainfield, N. J.,** Septic Tanks and Contact Beds at." Gavett, Andrew J. Engng. Rec. 44:471 (Nov. 16, 1901).

Police.

See United Kingdom, United States.

"National Danger from Police Corruption." Moss, Frank. No. Am. 173:470 (Oct., 1901).

Population, Growth of Cities, Decrease of Rural Population. (See also **Housing** and **History**).

See Boston.

"The Social Consequences of City Growth." Rowe, L. S. Yale R. 10:298 (Nov., 1901).

"**Portsmouth [Eng.]** Municipal Electric Tramways." Ty. & Ry. W. 10:539 (Oct. 17, 1901), Mun. J. 10:735 (Sept. 27, 1901).

Prague. Land Values. "Die Bodenwertbewegung in Prag und Vororten." Horacek, E. Sch. Ver. Socialpolitik 94:1 (1901).

"**Providence [R. I.]** Street Railway Franchise and Transfers." Sherman, Sidney A. Ann. Pol. Sci. 18:548 (Nov., 1901).

Public Works. (See **Engineering**).

"**Rhyl [Eng.]** Electric Lighting." Mun. J. 10:875 (Nov. 15, 1901).

Russia. Housing. "Untersuchungen über die Wohnungsfrage in Ruszland." Berthenson, Leo. Sch. Ver. Socialpolitik 97:269 (1901).

St. Louis.

"St. Louis: 'Most American of American Cities.'" Matthews, Franklin. Hrprs. Wkly. 45:917 (Sept. 14, 1901).

"Water-Works, St. Louis—Distribution System." Adkins, Ben C. Mun. Engng. 21:237 (Oct., 1901).

Saloon Problem in Cities. (See under **Liquor Problem in Cities.**)

"**San Antonio, Texas,** City of Parks." James, Vinton S. Overland 38:239 (Sept., 1901).

Sanitation, Public Health, Etc. (See also **Garbage Disposal, Housing, Population, Sewage Disposal, Water Supplies.**)

See Chicago, London.

"Engineering Phases of Health Board Works." Leighton, Marshall O. Cal. Mun 5:106 (Nov., 1901), Mun. J. & E. 11:215 (Nov., 1901), Mun. Engng. 21:308 (Nov., 1901).

"Handbook on Sanitation." Price, George K. New York, John Wiley & Sons, 1901. 8vo, 317 pp. $1.50.

"Municipal Sanitation." Weaver, William. Ir. & Coal T. R. Sept. 6, 1901, Surveyor Sup. (Sept. 13, 1901).

"Sanitary Inspectors' Work and How to Organize it." Kaye, James Robert. San. Rec. 28:450 (Nov. 21, 1901).

Schools.

See Boston, London, Menomonie (Wis.).

Settlements.

See Philadelphia.

"Les Settlements Sociaux." Escard, Paul. Ref. Soc. 42:416, 477 (Sept. 16, Oct. 1, 1901).

Sewage Disposal.

See Belfast, Huddersfield (Eng.), Leicester (Eng.), London, Madison (Wis.), Manchester (Eng.), Plainfield (N. J.), United Kingdom, Vancouver (B. C.), Worcester (Mass.).

"Aëration Test for Sewage Effluents." Rideal, Samuel. Surveyor 20:558 (Nov. 8, 1901).

"Cost of Sewer Construction, Estimation of the." Steece, Emmett. Mun. Engng. 21:406 (Dec., 1901).

"English and American Ideas on Sewage Purification." Engng. N. 46:265 (Oct. 10, 1901).

"Septic Tank and Double Contact Filter Beds for Treating the Sewage of Glencoe, Illinois." Wyllie, H. D. Engng. N. 46:313 (Oct. 24, 1901); anon. Engng. Rec. 44:368 (Oct. 19, 1901).

——. "The Management of Septic Tanks and Electrical Contact Beds." Fowler, Gilbert J. Engng. N. 46:193 (Sept. 19, 1901), Engng. Rec. 44:447 (Nov. 9, 1901), Mun. Engng. 21:242 (Oct., 1901).

"Treatment, Sewage." Jones, A. S. Surveyor Supplement, Sept. 6, 1901.

"Ventilation and Flushing of Sewers." Bryce, John. San. Rec. 28:424, 447 (Nov. 14, 21, 1901).

Slums. (See **Housing.**)

Smoke Nuisance.

See Cleveland, London.

Southend-on-Sea, Eng.

"Municipal Works of Southend-on-Sea." Fidler, Alfred. Surveyor 20:381, 412 (Oct. 4, 11, 1901), San. Rec. 28:311, 336, 373 (Oct. 10, 17, 31, 1901).

"Tramways, Southend-on-Sea Electric." Ty. & Ry. W. 10:463 (Sept. 12, 1901).

"**Southport [Eng.]** Tramways Company's Electric Lines." Ty. & Ry. W. 10:471 (Sept. 12, 1901).

Streets.

See Chicago, London.

"Cleansing Machine, A New Street." Mun. J. 10:800 (Oct. 18, 1901).

"Improvement, Street." Campbell, A. W. Mun. World 2:153 (Oct., 1901).

Lighting. "Street Illumination and Units of Light." Ryan, W. D'A. Trans. Am. Inst. Elec. Eng. 18:909 (Dec., 1901).

——. "Electric Street Lighting and Population." Adams, Alton D. Elec. R. 39:578 (Nov. 9, 1901).

——. "Relative Merits of Open and Enclosed Arc Lights for Street Illumination." Ryan, W. D'A. Am. Elec., Nov., 1901.

Sweden.

Housing. "Die Wohnungsfrage in Schweden." Albrecht, H. Sch. Ver. Socialpolitik 97:297 (1901).

"Municipal Government in Sweden." Siösteen, Gustaf. Mun. Aff. 5:779 (Dec., 1901).

Switzerland.

Housing. "Untersuchung über die Wohnungsfrage in der deutschen Schweiz." Mangold, F. Sch. Ver. Socialpolitik 97:1 (1901).

——. "La Question du Logement dans la Suisse Occidentale." Schnetzler, A. Sch. Ver. Socialpolitik 97:69 (1901).

Tammany Hall. (See **New York City**).

Telephones.

See Bristol (Eng.), Brussels, Duluth (Minn.), London, United Kingdom.

Tenement Houses. (See **Housing of the Working Classes.**)

"**Toledo** Natural Gas Plant, The Truth about the." Jones, Samuel M. Pub. Policy 5:315 (Nov. 16, 1901), Mun. J. & E. 11:257 (Dec., 1901).

Transportation Facilities.

See Ayr (Scotland), Birkenhead, Boston, Bournemouth (Eng.), Canada, Chicago, Columbus, Croydon, Glasgow, Havana, Italy, Leeds, London, New York, Paris, Portsmouth (Eng.), Providence, Southend-on-Sea (Eng.), Southport (Eng.), United Kingdom, Wigan.

"Car Mileage and How to Arrive at it easily." Smith, J. M. St. Ry. J. 18:553 (Oct. 12, 1901).

"Electricity as a Motive Power on Railways at Present Driven by Steam, The Economy of." Carus-Wilson, C. A. Ty. & Ry. W. 10:584 (Oct. 17, 1901).

"Grade Crossings, Abolition of." Zueblin, Charles. Mun. Aff. 5:817 (Dec., 1901).

History. "Street Railways: A Review of the Past and Forecast of the Future." McCulloch, Robert. St. Ry. R. 11:653 (Oct. 10, 1901), Elec. R. 39:516 (Oct. 26, 1901), St. Ry. J. 18:541 (Oct. 12, 1901).

"Interurban Roads to City Roads, The Relation of." McCormack, Ira A. St. Ry. J. 18:543 (Oct. 12, 1901), R. R. Gaz. 33:750 (Nov. 1, 1901).

"Modern Electric Railway Practice, Notes on." Armstrong, Albert H. St. Ry. J. 18:290 (Sept. 7, 1901), Engng. N. 46:358 (Nov. 14, 1901).

Statistics. "Report of Committee on Standard Blanks and Accounting for Material and Supplies." Smith, F. E. St. Ry. J. 18:551 (Oct. 12, 1901).

"Suburban Territory, The Development of." Brackenridge, J. C. St. Ry. J. 18:462 (Oct., 1901).

"Surface Transportation in Cities, The Limits of." St. Ry. J. 18:755 (Nov. 23, 1901).

United Kingdom.

"How Aldermen Are Elected." Mun. J. 10:830 (Oct. 25, 1901).

Local Government in England. Grenzboten, Sept. 5, 12, 19, 26, 1901.

"Local Government in Scotland." San. Rec. 28:200 (Sept. 5, 1901).

"Municipal Purity." Mun. J. 10:822 (Oct. 25, 1901).

"The Salaries of Municipal Officials." Mun. J. 10:882 (Nov. 15, 1901).

"Electric Power Supply in Great Britain." Brown, C. S. Vesey. Cassier's 21:162 (Dec., 1901).

Garbage Disposal. "Town Refuse Disposal in Great Britain." Goodrich, W. Francis. Cassier's 21:99 (Dec., 1901).

Housing. "Die Wohnungsfrage in England." Bötzow, Conrad. Sch. Ver. Socialpolitik 97:105 (1901).

——. "A New View of the Housing of the Poor and Municipal Trading." J. G. L. 78:18, 85 (July 2, 9, 1901).

——. "Slum Dwellers." Mun. J. 10:761 (Oct. 4, 1901).

——. "Town versus Country." Fyfe, Peter. San. Rec. 88:287 (Oct. 3, 1901).

"Lighting Boom, An Electric." Mun. J. 10:739 (Sept. 27, 1901).

Municipal Ownership. "Municipal Activity in England." Ashley, Percy. Cal. Mun. 5:109 (Nov., 1901).

——. "Municipal Telephones." Mun. J. 10:682 (Sept. 6, 1901).

——. "Guernsey Telephones." Mun. J. 10:769 (Oct. 4, 1901).

"Police in England, A History of." Lee, W. L. M. London, Methuen, 1901. 8vo, 430 pp. 7s. 6d.

"Sewage, The Disposal of." McDonald, A. B. Surveyor Supplement, Sept. 13, 1901.

Tramways. "Recent Tramway Practice." More, James, Jr. Ty. & Ry. W. 10:497 (Sept. 12, 1901), Surveyor Sup. Sept. 13, 1901, Surveyor 20:316, 343 (Sept. 20, 27, 1901), Elec. R. (L.) Oct. 18, 1901.

——. "Arbitration Cases Decided in the High and Appeal Courts of the United Kingdom in Relation to Tramways and Tramcars." Porter, J. Neville. Ty. & Ry. W. 10:478 (Sept. 12, 1901).

——. "Cheaper Railway Fares." Bell, Horace. Ty. & Ry. W. 10:587 (Oct. 17, 1901).

——. "Economic Effect of the Tramways Act of 1870." Knox, E. F. Vesey. Ty. & Ry. W. 10:578 (Oct. 17, 1901), Econ. J. 11:492 (Dec, 1901).

——. "New Municipal Tramways." Mun. J. 10:915 (Nov. 29, 1901).

——. "Some Big Tramway Schemes." Mun. J. 10:753 (Sept. 27, 1901).

United States.

Art. "Among the Improvement Clubs." Robinson, Charles Mulford. Mun. J. & E. 11:220, 265 (Nov., Dec., 1901).

"Bossism, The Cause and Cure of." (Editorial.) Outlook 69:525 (Nov. 2, 1901).

Charities. "Supervisory and Educational Movements." Brackett, Jeffrey R. Char. 7:212 (Sept. 7, 1901).

"Employment Offices, Free." 9th Biennial Report of the Bureau of Labor Statistics of the State of Iowa, 1899, 1900, p. 546.

Finance. "A Comparative Study of the Administration of City Finances in the United States, with Special Reference to the Budget." Clow, Frederick R. Am. Econ. Assoc. Pub. 3d. S. Vol. II., No. 4 (Nov., 1901). Paper, $1.

"Garbage Disposal in United States, Condition of." Baker, M. N. Mun. J. & E. 11:147 (Oct., 1901).

"Home Rule for Cities and Charter Legislation." Woodruff, Clinton Rogers. World R. 2:13 (Sept. 7, 1901).

"Housing of the Working People in the United States." Weber, Gustavus A. Sch. Ver. Socialpolitik 97:245 (1901).

Municipal Control. "The Relation of Electric Light Companies to Municipalities from a Legal Standpoint." Gaskill, D. L. Elec. R. 39:412 (Oct. 5, 1901), Pub. Policy 5:232 (Oct. 12, 1901).

"Police, The Character of American." Matthews, Franklin. World's Work 2:1314 Oct., 1901).

"Reform—A Business Suggestion." Flynt, Josiah. Ind. 53:2503 (Oct. 24, 1901).

——. "Commercialism in Politics. II." Coler, Bird S. Ind. 53:2561 (Oct. 31, 1901

——. "How to Improve Municipal Governments." Hayes, Thomas G. Mun. J. & E. 11:251 (Dec., 1901).

——. "Municipal Misgovernment and Corruption." Moss, Frank. Cosmop. 32:1 (Nov., 1901).

——. "Publicity as a Means of Social Reform." Baldwin, W. H., Jr. No. Am. 173:845 (Dec., 1901).

——. "The Essential Element in Good City Government." Bonaparte, Charles J. Pub. Pol. 5:229 (Oct. 12, 1901).

"Statistics of Cities." B. Dept. Labor 6:813 (Sept., 1901).

"Water Works Statistics for the Year 1900, in Form Adopted by the New England Water-Works Association." Sherman, Charles W. J. N. E. W. W. A. 15:3 (Sept., 1901).

"**Vancouver, B. C.,** Septic Tanks." Engng. Rec. 44:339 (Oct. 12, 1901).

"**Vermont,** Water Supplies of." Moat, Charles P. J. N. E. W. W. A. 15:514 (Dec., 1901).

Vienna.

"Drainage and Improvement Works at Vienna. "Travaux d'Assainissement et d'Embellissement de la Ville de Vienne." Philippe, R. Génie Civil, Sept. 7, 1901.

"Gas-Works, The Vienna Municipal." J. G. L. 78:1228 (Nov. 12, 1901).

Housing. "Die Entwickelung der städtischen Grundrente in Wien." Schwarz, Pa. Sch. Ver. Socialpolitik 94:33 (1901).

"**Walthamstow [Eng.]** Electricity Works." Elec. R. (L.) Oct. 18, 1901

Washington, D. C.

"Aggrandizement of Washington." Smith, Franklin Webster. Washington, Senate Document, 209, 1901. 8vo, 189 pp.

——. "Embellishment of Washington." Mun. Aff. 5:909 (Dec., 1901).

"Refuse Disposal in the District of Columbia." Woodward, William C. Engng. Rec. 44:301 (Sept. 28, 1901).

Water Supplies of Cities.

See Albany, Belfast, Boston, Buffalo, Chemnitz (Ger.), Chicago, Guantanamo (Cuba), Lawrence (Mass.), Merthyr Tydvil (Wales), New Orleans, St. Louis, United States, Vermont.

"Analysis, Standard Methods of Water." Fuller, George W.; Whipple, George C.; Clark, Harry W.; Gehrmann, Adolph; Johnston, Wyatt; Jordan, E. O.; Russell, H. L. Engng. Rec. 44:296 (Sept. 28, 1901).

——. "The Bacteriological Analysis of Water and its Interpretation." Winslow, Charles Edward Amory. J. N. E. W. W. A. 15:459 (Dec., 1901).

"Meter as a Sanitary Agent, The Water." Baker, M. N. Mun. J. & E. 11:199 (Nov. 1901), Mun. Engng. 21:312 (Nov., 1901).

"Pollution of Streams by Manufactural Wastes and Methods of Prevention, The." Clark, H. W. J. N. E. W. W. A. 15:500 (Dec., 1901).

——. "Detecting and Preventing the Pollution of Public Water Supplies." Watts, William. J. G. L. 78:211 (July 23, 1901).

"Protection of Water Supplies." J. G. L. 78:1101 (Oct. 29, 1901).

"Purification by Means of Ozone, Water." Elec. Eng. (L.) Nov. 8, 1901.

——. The Sterilization of Water by Ozonized Air. "Die Wassersterilisierung durch ozonisierte Luft." Krall, Fritz. Elektrochem. Zeit. 8:99 (Aug., 1901).

"Rainfall and Village Water Supplies." J. G. L. 78:1171 (Nov. 5, 1901).

"Sand Filters, Note on the Working of." Rutter, Henry F. Engng. Rec. 44:481 (Nov. 16, 1901).

"Waste, The Consumption of Water in Municipal Supplies and the Restriction of." Herschel, Clemens. Pro. Am. Soc. Civ. Eng. 27:831,976 (Sept., Oct., 1901).

"**Weymouth** [Eng.] and its Corporation." Mun. J. 10:699 (Sept. 13, 1901).

"**Wigan** Corporation Electric Tramways." Ty. & Ry. W. 10:607 (Nov. 14, 1901).

"**Worcester, Mass.**, Recent Sewerage Work in." Engng. Rec. 44:394 (Oct. 26, 1901).

Wyoming. "Woman's Suffrage and Municipal Politics." Roberts, H. H. Ann. Pol. Sci. 18:556 (Nov., 1901).

York, Eng. "Poverty: A Study of Town Life." Rowntree, B. Seebohm. (Chapters on Social and Economic Conditions, Poverty Line, Causes of Poverty, Housing, Family Budgets, etc.) London, Macmillan & Co., 1901. 8vo, 437 pp. Cl. 10s. 6d.

"**Zurich, Switzerland**, Results of a Year's Working of the New Gas Works at." Allen, Walter S. Am. G. L. J. 75:528 (Sept. 30, 1901).

BIOGRAPHICAL NOTICES

OF THE

WRITERS IN MUNICIPAL AFFAIRS FOR DECEMBER, 1901.

CARL C. PLEHN—Born in Providence, R. I., in 1867. Graduated from Brown University in 1889 and took the degree of Ph. D., at Gottingen two years later. Became professor of history at Middlebury College in 1891, and went to the University of California as assistant professor of history and political science in 1893, being afterward promoted to the associate professorship of finance and statistics, and on the establishment of the College of Commerce in that university became its dean. Both of these positions he still holds. Is a political economist and makes a specialty of taxation and statistics. His textbook, *An Introduction to Public Finance,* is widely used in the colleges and universities of this country and of England. Is a frequent contributor to the scientific journals. Went to Manila with the present Philippine Commission in the capacity of expert on taxation and statistician, returning last August on the expiration of his leave of absence from the university. He published the first of a series of articles on the history of taxation in the Philippines in the December number of the *Political Science Quarterly.*

WILLIAM CHARLES HODDER—Born in Lowell, Mass., 1870. Educated at the Farnham Grammar School and Amherst College, graduating from the latter in 1892. Followed journalism until 1897, being connected with papers in Lowell and Syracuse. Poor health compelled him to seek a dryer climate, and in 1897 he entered the employment of the Northwestern Telephone Exchange Company, being the head of the construction department, which position he held at the time of his death last fall. Has written frequently upon economic subjects for the daily press and the magazines.

BROOKS ADAMS—Born in Quincy, Mass., 1848, son of the late Charles Francis Adams. Graduated from Harvard in 1870. Studied law and practiced his profession until 1881; since then he has devoted his attention chiefly to literary occupations. Is the author of *The Law of Civilization and Decay, America's Economic Supremacy,* and many magazine articles upon economic subjects.

CHARLES ZUEBLIN—Born in Pendleton, Ind., in 1866. Was educated in the Philadelphia public schools, University of Pennsylvania and Northwestern University, from which he graduated in 1887. Received the degree of B. D. from Yale University in 1889. Studied at the University of Leipzig, 1889-1891. Founded the Northwestern University Settlement in 1892. Secretary of the Chicago Society for University Extension, 1892. Instructor in sociology in Chicago University, 1892-95, and assistant professor, 1895 to the present. Is a member of many societies, such as the American Academy, National Municipal League and American Statistical Society. Has frequently contributed to many magazines, and lectures widely upon municipal and sociological subjects.

JOHN G. AGAR—Born in New Orleans, 1856. Graduated from Georgetown University, D. C., with the degree of A. B., in 1876; A. M., 1886; Ph. D., 1888. Studied law at Columbia University, graduating in 1880, since which date has prac-

ticed law in New York City. Was assistant United States attorney for the southern district of New York, 1881-82. Chairman campaign committee, People's Municipal League, 1891. Member of the Board of Education, New York, 1896-98. Is a member of many clubs and organizations prominent in public affairs.

JOHN DEWITT WARNER—Born in 1851, in Schuyler County, New York. Graduated from Cornell in 1872. Was professor for two years at Ithaca Academy, and two years at Albany Academy. Studied law at Albany Law School, and admitted to the bar in 1876. Has since practiced in New York City. Elected to the Fifty-second and Fifty-third Congresses. Was chairman of the House subcommittee to investigate the sweating system. Secured the "free-sugar" amendment to the Wilson tariff bill. Was one of the founders of the New York Reform Club, and its president, 1897-98; tariff reform editor of the New York *Weekly World* during the campaign of 1892; chairman Reform Club's Tariff Committee, 1889-1891; chairman Sound Currency Committee, 1895-1896; chairman of Committee on City Affairs, 1897-99. Is trustee of Cornell University, president of the Municipal Art Society and president of the Municipal Art Commission of this city. Has done extensive editorial work, and has contributed many articles upon literary, political, financial and economic subjects.

MAYNARD N. CLEMENT—Born in the town of Bristol, Ontario County, New York, October 12, 1856, of Huguenot-Dutch ancestry. Was educated in the common schools and Canandaigua Academy. Admitted to the bar in January, 1880. Is an active Republican in politics, and was chairman of the Republican county committee for several years. Elected district attorney of Ontario County in November, 1887. Served for six years, making an unprecedented record in the proportion of convictions secured, a special feature being the aggressive prosecution of excise cases. The experience obtained in performing these duties induced him to suggest to Senator Raines the advisability of remodeling the excise system so as to adopt as its salient feature high license. Was appointed deputy state commissioner of excise in 1896, immediately after the passage of the Raines law, which position he still holds.

LYMAN ABBOTT—Born in Roxbury, Mass., 1835. Graduated at the College of the City of New York, 1853. Began life by practicing law. Was ordained a Congregational minister in 1860; pastor of a church in Terre Haute, Ind., for five years. Came to New York as pastor of the New England church in 1865. In 1869 resigned pastorate to devote time to literature. Was associate editor of the *Christian Union* with Henry Ward Beecher, whom he succeeded as pastor of Plymouth Church, Brooklyn, in 1888. In 1898 resigned this pastorate to devote his whole time to literature. Is editor of the *Outlook* and the author of many books on religious and social subjects. His interest in questions of civic morality and municipal progress is well known.

WILLIAM TRAVERS JEROME—Educated by tutors and at Amherst College. Studied law at Columbia Law School; has since practiced law in New York City. Assistant district attorney, 1888-1890. One of counsel to the Lexow Commission, 1894. Campaign manager for Committee of Seventy, 1894. Appointed justice of the Court of Special Sessions, 1895. Elected district attorney for New York County at last election, 1901, upon Fusion ticket. Has given valuable assistance to movements to purge the city of crime and vice.

FELIX ADLER—Born in Germany in 1851, the son of a Hebrew rabbi. Graduated from Columbia, 1870. Was professor of Hebrew and Oriental literature at Cornell University, 1874-1876. In 1876 established the New York Society for Ethical Culture, before which he gives his famous Sunday morning addresses at Car-

negie Hall. Is a member of the editorial board of the *International Journal of Ethics*. Has written widely on ethical matters. Is actively interested in many movements for civic betterment in New York City.

R. FULTON CUTTING—Graduated from Columbia College and Columbia Law School. Has practiced in New York City. Has been prominently connected with the most important philanthropic and political movements of New York City, having been for many years an active member of the Charity Organization Society, and, since their foundation, of the Citizens' Union and the City Club. Has been president of the Citizens' Union for several years. Has contributed to many prominent magazines on sociological questions. Is a member of several of the more important New York clubs.

RICHARD ROGERS BOWKER—Born in Salem, Mass., 1848. Graduated at the College of the City of New York, 1868. Editor of the *Publisher's Weekly, Library Journal, American Catalogue*, etc. First vice president of the Edison Electric Illuminating Company of New York from 1890 to 1899. Lived in London 1880 to 1882. Has written many and well-known books and articles on political and economic subjects. In politics is an Independent, and has been prominently connected with many reform movements in national and local politics. Has never held any public office, although many have been offered him, but has done much public service in semi-public organizations.

EDWARD W. BEMIS—Born in Springfield, Mass., 1860. Graduated from Amherst College in 1880, and received the degree of Ph. D. from Johns Hopkins University in 1885. Was adjunct professor of history and political economy, Vanderbilt University, 1890-92; associate professor at the University of Chicago, 1892-95. Was special agent of the Illinois Bureau of Labor Statistics, 1896-97. Professor in the Kansas State Agricultural College, 1897-99. At present is administrative head of the water-works department, Cleveland, Ohio. His principal contributions are: *Co-operation in New England and the Middle States, Municipal Ownership of Gas in the United States, Co-operative Distribution, Chicago Gas and Street Railways, Benefit Features of American Trade Unions, Municipal Monopolies, Academic Freedom.*

LIBRARY OF THE UNIVERSITY OF CALIFORNIA

4

113810

RETURN TO ⟶ **CIRCULATION DEPARTMENT**
202 Main Library

LOAN PERIOD 1 **HOME USE**	2	3
4	5	6

ALL BOOKS MAY BE RECALLED AFTER 7 DAYS

Renewals and Recharges may be made 4 days prior to the due date.

Books may be Renewed by calling 642-3405.

DUE AS STAMPED BELOW

DEC 22 1991
RETURNED NOV 22 '91

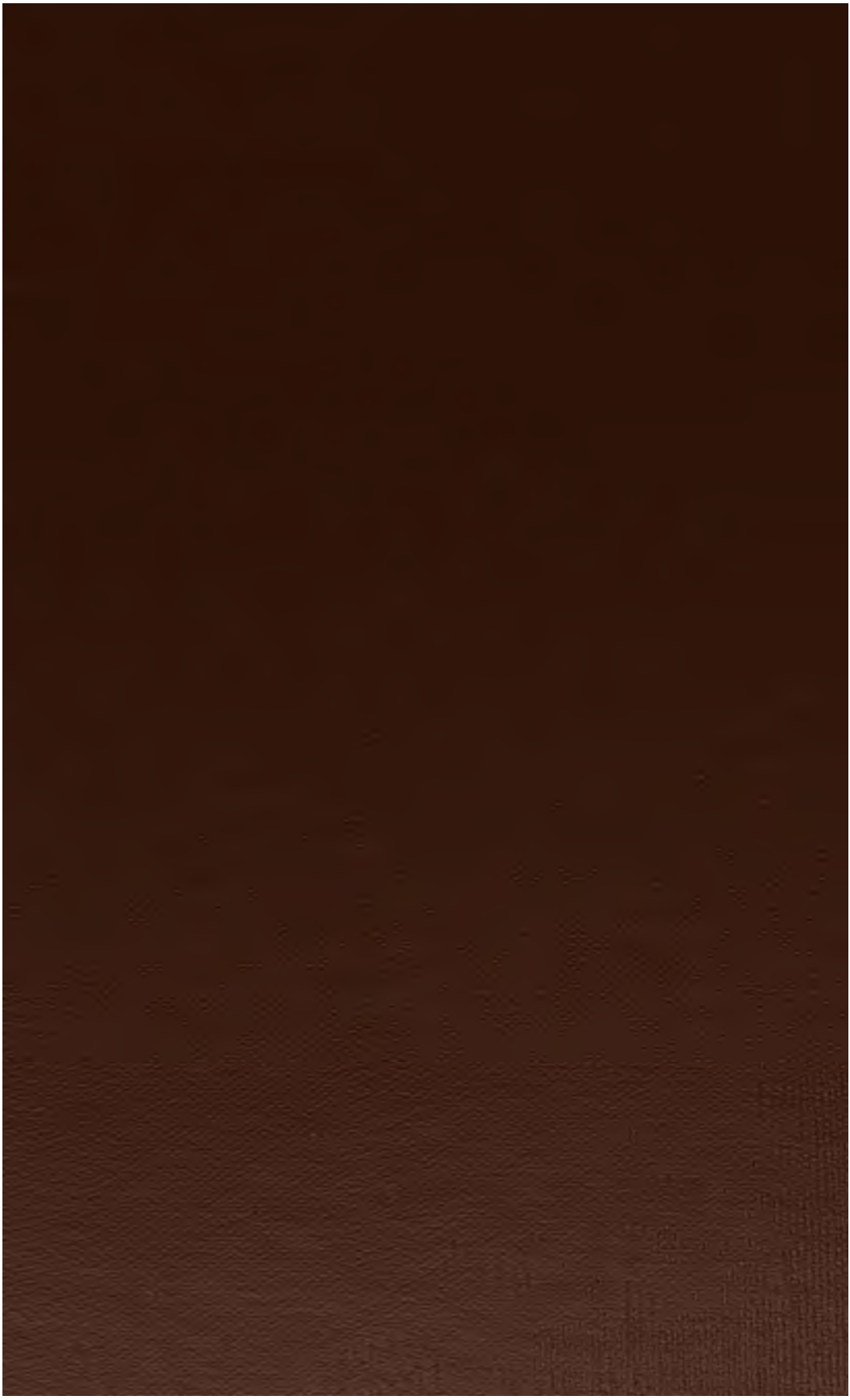
MAR 26 1992

RECD MAR 30 '92

APR 02 1999

AUG 11 2000

UNIVERSITY OF CALIFORNIA, BERKELEY
BERKELEY, CA 94720

FORM NO. DD6

U.C. BERKELEY LIBRARIES
C008704511